The Economist

MARCH 13TH–19TH 2004 www.economist.com

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Politics this week

Mar 11th 2004
From The Economist print edition

Carnage in Madrid

Reuters

A series of bomb attacks on the rail network in **Madrid** killed at least 170 people. The bombs came a few days before a general election in **Spain** that would have marked the end of the government of José Maria Aznar, who had taken a hard line against Basque separatists.

See article

The conservative New Democracy party convincingly won the **Greek election**. At 47, Costas Karamanlis, nephew of an earlier prime minister, will be Greece's youngest-ever prime minister. His immediate challenges are to help engineer a settlement of divided Cyprus, and to ensure that the Olympic Games in August are a success.

See article

The Freedom Party of Jörg Haider, a far-right Austrian politician, won overwhelmingly in Carinthia. He is likely to stay on as the province's governor, though he could still cause trouble in Vienna, where his party is a junior partner in **Austria's** coalition government.

See article

Ahead of his expected re-election as president on March 14th, Vladimir Putin reshuffled **Russia's** government. The changes slim down some ministries and may offer more scope for economic reformers, though hardliners will remain in charge of the sensitive foreign, defence and interior ministries.

See article

Scientists staged one-day strikes across **France**, in protest at poor conditions and cuts in French research budgets**.** Laboratory directors said they were resigning from their administrative responsibilities. The government was unmoved.

See article

More suicide bombings in **Turkey**. Two men struck in Istanbul, killing a banker and a bystander in a restaurant.

A constitution, for now

More than a week after the original deadline, all 25 members (or their proxies) on **Iraq's** American-appointed Governing Council signed up to a new interim constitution, giving the Kurds autonomy in a federal state and making Islam “a” but not “the” source of legislation. But most of the council's Shias issued a statement stressing their reservations about the document and underlining its interim nature.

See article

Israeli forces killed 15 **Palestinians** in the Gaza Strip, most of them Hamas gunmen but at least four teenagers and children. A few days later the Israelis killed five Palestinian gunmen in the West Bank city

of Jenin. But there were also rumours that, with Egyptian prodding, Israel's Ariel Sharon and his Palestinian counterpart, Ahmed Qurei, might at last hold their first heads-of-government meeting next week. Israel's foreign minister flew to Cairo to hold talks with Egypt's president, Hosni Mubarak.

Abu Abbas, the Palestinian who in 1985 hijacked the *Achille Lauro* cruise ship and had a wheelchair-bound American tourist murdered and tipped overboard, has died aged 56, apparently of natural causes. Mr Abbas had been in American captivity in Baghdad, where he was nabbed in April.

AFP

The **Zimbabwean** authorities impounded an aircraft that had stopped over in Harare, the capital, en route from South Africa to an unknown destination, allegedly because it was carrying mercenaries. Equatorial Guinea's president claimed the men were involved in a plot to topple him, financed by “countries that do not love us”.

According to *Le Monde*, a French police investigation has blamed **Rwanda's** president, Paul Kagame, for the shooting down of a predecessor's plane in 1994. That assassination was used as a pretext for the genocide that followed. Mr Kagame, the former rebel leader who ended the genocide, has always denied the charge.

Paying an arm and a leg

The University of California at Los Angeles suspended its **body-donor programme** for medical research after it was discovered that some body parts had been sold to private laboratories for profit. The head of the university's donor programme was arrested; relatives of the deceased filed a lawsuit.

George Bush officially won the **Republican nomination** for president after the latest round of primary elections gave him a winning margin of delegates. John Kerry won four primaries in the South, including Florida. A *Miami Herald* poll showed Mr Kerry narrowly leading Mr Bush in the Sunshine State.

Mr Bush's campaign chairman said he would not pull a series of controversial **election TV ads** featuring footage of September 11th. Some relatives of the victims found the ads in poor taste.

John Allen Muhammad and Lee Malvo, the **Washington snipers**, were sentenced in separate cases. Mr Muhammad was sentenced to death, and Mr Malvo, who was 17 at the time of the shooting spree in October 2002, received life imprisonment.

Close to the edge

Néstor Kirchner, **Argentina's** president, narrowly avoided a default on $3.1 billion he was due to pay the International Monetary Fund. In return, the IMF promised to approve another tranche of a $13.3 billion loan it agreed with Argentina last year.

See article

The former president of **Haiti**, Jean-Bertrand Aristide, claimed from exile that he had been toppled and abducted by America. America retorted that he had left voluntarily. An interim president, Boniface Alexandre, was sworn in, and American troops started disarming people. They also killed at least four Haitians.

See article

Venezuela's president, Hugo Chávez, made veiled threats to stop selling oil to the United States, which he accuses of backing a popular campaign for a referendum to oust him, but then backtracked. Several people died during protests against his regime.

See article

A big test

Reuters

India's cricket team arrived in Pakistan for a five-week tour—its first there for almost 15 years, and a direct result of the recent thaw between the two nuclear adversaries.

The Tamil Tigers in **Sri Lanka** suffered a rare split. A commander defected, and accused the Tigers' leadership of preparing for war.

South Korean opposition parties tabled the first-ever impeachment motion against the country's president.

See article

Hong Kong's budget forecast 6% growth for the new financial year, blunting fears that tax increases will be needed.

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Business this week

Mar 11th 2004
From The Economist print edition

Getting hot in the kitchen

Martha Stewart may soon have the opportunity to ponder the spartan furnishings of a prison cell. America's doyenne of modern living, and her stockbroker, were convicted of obstructing federal agents investigating suspected insider dealing. Ms Stewart, who still faces civil investigation by the Securities and Exchange Commission, plans to appeal.

See article

Pressure mounted on **Royal Dutch/Shell**, as law firms began preparing class-action lawsuits alleging deception by the oil giant's management. Company memos suggest that top managers knew from the start that there were potential problems with its system for classifying oil and gas reserves.

See article

A report published by the British government blamed the downfall of the world's oldest life insurer, **Equitable Life**, on managers who for years promised policyholders more in bonus payments than the company's assets justified. Regulators were fingered, too, but the government made it clear that it had no plans to pay compensation, despite losses estimated at £3 billion ($5.4 billion).

See article

Wrong turning

Deutsche Telekom lost *euro*364m ($434m) in the fourth quarter after a period of recovery following a loss of *euro*25 billion for 2002, the largest ever by a European company. The German telecoms firm blamed charges at Toll Collect, a consortium that has tried but so far failed to develop a satellite-based road-toll system for lorries for the German government.

Volkswagen endured a slight misfire. The German car company, which suffered plunging profits last year, gave warning that the first quarter of 2004 would also be “lousy” and said that 5,000 jobs would be lost as part of a cost-cutting drive.

Spain's **Telefónica** sought mobile-phone El Dorado in Latin America as domestic growth stalls; it agreed to buy **BellSouth's** operations in the region in a deal worth $5.9 billion. BellSouth wants to concentrate on integrating its North American joint-venture, Cingular, with AT&T Wireless.

Alstom, which teetered on the edge of bankruptcy last year, gave warning that the costs of restructuring had exceeded expectations and that profits were likely to suffer. The French engineering giant's shares plunged.

Court on camera

Eastman Kodak launched a lawsuit against **Sony** alleging that the Japanese electronics firm had infringed several of its digital-camera patents after three years of talks aimed at resolving the dispute. The salvo comes shortly after the American camera giant announced a strategy to become a “leader” in the digital-camera market.

Two of America's biggest grocers bemoaned the effects of a grocers strike that hit California. The industrial dispute, which ended recently, contributed to a loss of $337m in the latest quarter at **Kroger**, America's biggest grocery chain, and a 37% fall in profits compared with a year ago to $130m at **Albertsons**, its nearest rival.

McDonald's put corporate social responsibility at the top of the menu. A week after the fast-food giant pledged to stop serving “supersized” portions of fries and soft drinks in America, it announced that healthier fare such as salads and fruit would supplement its range of burgers in outlets across Europe.

Four of America's biggest internet-service providers took concerted action to tackle **spam**. America Online, Earthlink, Microsoft and Yahoo! announced that they had filed lawsuits against hundreds of America's most notorious spammers under new legislation designed to alleviate the tide of junk e-mails.

Many Americans went without their favourite TV shows after **EchoStar Communications**, the country's number-two satellite-TV company, pulled the plug on programming supplied by **Viacom**. Services were restored two days later after the firms resolved a dispute over a new distribution contract.

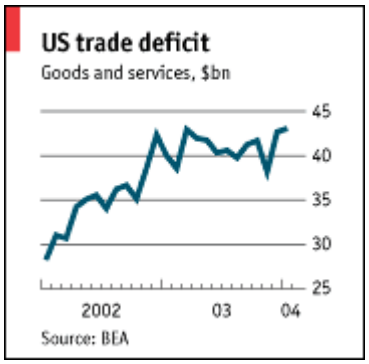
Sage knows his onions

Warren Buffett's eagerly awaited letter to shareholders in Berkshire Hathaway revealed that the Sage of Omaha was feeling bearish. Berkshire's cash-pile grew to $36 billion as Mr Buffett steered clear of American shares. He also criticised dodgy-dealing mutual funds, excessive executive pay and George Bush's tax cuts.

See article

America's **trade deficit** hit an all-time high in January of $43.1 billion. Expensive oil and the restocking of inventories pushed up the value of imported goods to near record levels as the American economy picked up, but the weakness of the dollar should eventually help to ease the trade balance.

See article



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Poverty and inequality

A question of justice?

Mar 11th 2004
From The Economist print edition

The toll of global poverty is a scandal. But deploring economic "injustice" is no answer

Corbis

HUNDREDS of millions of people in the world are forced to endure lives of abject poverty—poverty so acute that those fortunate enough to live in the United States, or Europe or the rich industrialised parts of Asia can scarcely comprehend its meaning. Surely there is no more commanding moral imperative for people in the West than to urge each other, and their governments, to bring relief to the world's poorest. And what a tragedy it is, therefore, that many of the kind souls who respond most eagerly to this imperative bring to the issue an analytical mindset that is almost wholly counterproductive. They are quite right, these champions of the world's poor, that poverty in an age of plenty is shameful and disgusting. But they are quite wrong to suppose, as so many of them do, that the rich enjoy their privileges at the expense of the poor—that poverty, in other words, is inseparable from a system, capitalism, that thrives on injustice. This way of thinking is not just false. It entrenches the very problem it purports to address.

Symptomatic of this mindset is the widespread and debilitating preoccupation with "global inequality". Whenever the United Nations and its plethora of associated agencies opine about the scandal of world poverty, figures on inequality always pour forth. (Such figures, though, are always higher than the likely reality: see article) It is not bad enough, apparently, that enormous numbers of people have to subsist on less than a dollar a day. The claim that this makes in its own right on the compassion of the West for its fellow men is deemed, apparently, too puny. The real scandal, it seems, is that much of the world is vastly richer than that. The implication, and often enough the explicit claim, is that the one follows from the other: if only we in the West weren't so rich, so greedy for resources, so driven by material ambition—such purblind delinquent capitalists—the problem of global poverty would be half-way to being solved.

Equity at a price

Certain ideas about equality are woven into the fabric of the liberal state, and quite inseparable from it: first and foremost, equality before the law. But equality before the law, and some other kinds of liberal equality, can be universally granted without infringing anybody's rights. Economic equality cannot. A concern to level economic outcomes must express itself as policies that advance one group's interests at the expense of another's. This puts political and ethical limits on how far the drive for economic equality ought to go. (Strictly practical limits, as well, since too noble a determination to take from the rich to give to the poor will end up impoverishing everyone.) It also means that perfect economic equality should never be embraced, even implicitly, as an ideal. Perfect economic equality is a nightmare: nothing short of a totalitarian tyranny could ever hope to achieve it.

The preoccupation bordering on obsession with economic equality that one so often encounters at gatherings of anti-globalists, in the corridors of aid agencies and in socialist redoubts in backward parts of the world reflects a "lump of income" fallacy. This remarkably tenacious misconception is that there is only so much global income to go around. If the United States is consuming $10 trillion worth of goods and services each year, that is $10 trillion worth of goods and services that Africa cannot consume.

But goods and services are not just lying around waiting to be grabbed by the greediest or most

muscular countries. Market economics is not a zero-sum game. America consumes $10 trillion worth of goods and services each year because it *produces* (not counting the current-account deficit of 5% or so of the total) $10 trillion of goods and services each year. Africa could produce and consume a lot more without America producing and consuming one jot less. It so happens that the case for more aid, provided of course that it is well spent, is strong—but the industrialised countries do not need to become any less rich before Africa can become a lot less poor. The wealth of the wealthy is not part of the problem.

To believe otherwise, however, is very much part of the problem. For much of the 20th century the developing countries were held back by an adapted socialist ideology that put global injustice, inequality and victimhood front and centre. Guided by this ideology, governments relied on planning, state monopolies, punitive taxes, grandiose programmes of public spending, and all the other apparatus of applied economic justice. They also repudiated liberal international trade, because the terms of global commerce were deemed exploitative and unfair. Concessions (that is, permission to retain trade barriers) were sought and granted in successive negotiating rounds of the General Agreement on Tariffs and Trade. A kind of equity was thus deemed to have been achieved. The only drawback was that the countries stayed poor.

Towards the end of the century, many developing countries—China and India among them—finally threw off this victim's mantle and began to embrace wicked capitalism, both in the way they organised their domestic economies and in their approach to international trade. All of a sudden, they are a lot less poor, and it hasn't cost the West a cent. In Africa, too, minds are now changing, but far more slowly. Perhaps that has something to do with the chorus that goes up from Africa's supposed friends in the West, telling the region that its plight is all the fault of global inequality, “unfair trade” and an intrinsically unjust market system.

Heed the call

People and their governments in the West should heed the call of compassion, and respond with policies to help the world's poor, and indeed to advance the opportunities of the (much less desperately) poor in their own countries. Expressed that way, the egalitarian impulse is a good thing, worth nurturing. But a compassionate regard for the poor, as any good Marxist will tell you, is a very different thing from a zeal for economic “justice”. That zeal, despite the exemplary fate of the socialist experiment at the end of the 20th century, guides a great deal of thinking still. And it continues to do nothing but harm.

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The constitution

Labour's constitutional mess

Mar 11th 2004
From The Economist print edition

How the government's vision for constitutional reform has been clouded by power

WHEN Labour came into office, pretty much everybody agreed that Britain's constitution was a mess. The new government's programme for wholesale reform was widely hailed as a fine testament to its radicalism. Now, with the House of Lords' vote on March 8th to park the constitutional reform bill with a committee, that programme lies in tatters and a party once applauded for its liberal vision is attacked for its authoritarian tendencies. What went wrong?

The problem with this week's bill, which was intended to give the judiciary greater independence by abolishing the office of Lord Chancellor (who both sits in the cabinet and runs the legal system), giving his power to appoint judges to an independent commission and setting up a Supreme Court detached from the House of Lords, lay partly in the way the changes were introduced. The government announced its plans with startling arrogance. Governments contemplating legislation usually publish first a green paper (for discussion), then a white paper (for specific proposals), then a bill. A higher bar is usually set for constitutional change than for ordinary legislation. Yet last year, in the course of a cabinet reshuffle, with no prior discussion, this government announced plans for fundamental changes to a 1,000-year-old judicial system. Interested parties, such as judges, were understandably miffed not to have been consulted. Disinterested parties, such as the press, thought the government should have taken the trouble to chew the matter over in public.

But the government's unwillingness to consult is a symptom of a more fundamental problem. Labour espoused constitutional reform in opposition. Once in office, it discovered that constitutional reform involved stronger checks on executive power. It was less keen on those.

Not just wigs and tights

Tony Blair inherited Labour's constitutional-reform programme from John Smith, his predecessor, who believed strongly in a Scottish parliament and wedded Labour to devolution. This suited Mr Blair, who wanted to impress middle England with his conservative spending plans, and saw constitutional reform as radicalism on the cheap.

Labour has delivered the parts of its constitutional reform package which are add-ons to the way Britain is governed—parliaments for Scotland and Wales, and a few elected mayors—without too much difficulty. They may cost money and do little, but they are too peripheral to interfere much with the core business of government. The trouble has come with reforms which involve big changes to the way central government works. The reform of the House of Lords is stuck: the last of the hereditaries are on their way out, but it is unclear what will replace them (see article). And now the government's grand scheme for giving the judiciary greater formal independence of the other branches of government has collapsed, partly because of a revolt by the judiciary itself (see article).

Labour says that its reforms have fallen foul of reactionary peers and power-hungry judges, or even vice-versa. That may be so; but it is also increasingly unpopular with liberals who worry about Labour's new ambivalence to constitutional change. Getting rid of judges' wigs and tights, and the flummery and confusion surrounding the Lord Chancellor's role, appeals to the party's modernising instincts. Yet deep in Labour's soul lies the belief that the elected government expresses the will of the people, and that

attempts to check its power are therefore attacks on democracy. That is especially so when the principal checks are judges and lords, who are, by and large, old, white, male and conservative.

Why the judges are cross

This belief provides a convenient philosophical prop for the growing high-handedness of the executive. The government's reluctance to countenance any dilution of its powers shines through its constitutional dealings. It not only failed to discuss the constitutional reform bill with the judges or anybody else, but also included in the bill a clause that would have given ministers a veto over the appointment of judges—a curious provision in a measure supposedly designed to increase their independence.

Mr Blair's view of House of Lords reform perfectly illustrates the executive's attitude to other branches of government. He wants an appointed, not an elected, Lords, because he fears election would give a second chamber legitimacy, and thus power. Similarly, the Freedom of Information Act is a pale shadow of what was once promised. A government-appointed committee which reported earlier this year said the government should remove from it the provision which allows ministers to veto the publication of information at will. The government has declined to remove it.

Then there is the executive's growing willingness to play fast and loose with the judicial system. Next week offers a fine illustration of this tendency. The asylum and immigration bill, which is due for its second reading in the Lords on March 15th, would severely restrict judges' right to review asylum cases, thus creating a separate and unequal bit of the judicial system for asylum-seekers. If Britain had a Supreme Court and a written constitution, such a move would undoubtedly be declared unconstitutional. It is not, therefore, surprising, that doubts have crept in about the government's constitutional sincerity.

What now? The government's plans for constitutional reform have gone too far for it to abandon them. The House of Lords is already half-reformed, and once a new system for appointing peers is chosen, the Lord Chancellor's office will go and the Law Lords will have to move out, so the government will be forced to establish some sort of Supreme Court and find a new way of appointing judges. But the government says there will be a “period for reflection”.

That is good. This newspaper, which has long campaigned for constitutional reform, is glad the House of Lords rejected the government's bill. Flawed reform is worse than none at all. And the government may now stop, reconsider—and even ask others what they think about this hugely important subject.

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Technology

The vision thing

Mar 11th 2004
From The Economist print edition

The most successful technologies develop in ways their inventors failed to foresee

PREDICTING the future is notoriously difficult, and the grander and more elaborate the vision, the more likely it is to be proven wrong. But that does not stop technologists, who love to paint vivid pictures of a world transformed by whatever it is they have just invented. Such grand visions can help to kick-start enthusiasm for new technologies and foster their adoption by the public. In many cases, however, technologists' visions turn out to be wide of the mark, either because new inventions fail or, more interestingly, because they succeed in unforeseen ways.

The dream of a future in which robotic helpers would banish drudgery emerged in the mid-20th century and has persisted ever since (see article). After a recent surge in sales of robot vacuum cleaners, optimism has been growing that the long-awaited market for domestic robots might be about to take off. Yet domestic robots are in fact already widespread, from dishwashers to washing machines to coffee-makers. Such devices are not regarded as robots, however, since they fail to conform to the general-purpose humanoid format originally predicted by robot visionaries. But with two robots exploring Mars, growing sales of industrial robots and a military robot race about to start in the Mojave desert, it is clear that the technology is doing well—just not in the way the visionaries imagined.

Something similar is going on in the field of nanotechnology. The first products based on novel, atomic-level manufacturing techniques are now heading towards the market. But they do not conform to the original vision of tiny self-replicating machines, familiar from science-fiction films and novels, that was sketched out by the most famous nanotech guru, Eric Drexler. Just because it is developing in unexpected ways does not mean nanotechnology has failed, however.

Other examples abound. Interactive TV, in which viewers interact with the on-screen action by pressing buttons on their remote controls, would appear to have been a flop, at least as originally imagined. But it is in fact in rude health: witness the success of reality-TV shows in which viewers vote using their telephone handsets. Similarly, the dream of the universal pocket computer, cooked up by the computer industry in the 1990s, would seem to have died: handheld computers such as Palm Pilots are strictly for geeks. Yet nearly everyone in the rich world carries mobile phones, which are becoming more computer-like by the day. And mobile-phone gurus were right to predict an explosion in data services: it just happened in the unexpected form of text messaging, rather than the phone-based web-browsing and shopping the industry expected.

Visionaries get things wrong because they concentrate too much on the technology, and fail to take into account the way it is shaped by social forces as it spreads. Indeed, it would seem that the more wrong the original vision, the more important the technology. Perhaps the ultimate example is the internet: its power derives from the fact that its original architects, Vinton Cerf and Bob Kahn, made no assumptions at all about the ways in which it might be used, and so placed very few constraints on its development. To be sure, this “no vision” vision is not much help when it comes to raising venture capital or attracting buyers for a new gizmo. But it is a powerful reminder that the ultimate yardstick for a successful technology is how well it is accepted in the marketplace—not how well it conforms to the original vision of its proponents.

This article appeared in the North America, Europe and Asia Pacific editions of *The Economist*.

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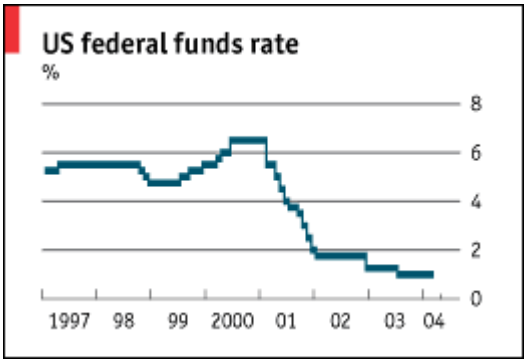
American interest rates

Playing loose with money

Mar 11th 2004
From The Economist print edition

It is time for the Fed to start raising interest rates



MONEY has never been so cheap. The average short-term interest rate in the big economies is at its lowest in recorded history. By slashing interest rates to only 1% after the stockmarket bubble burst, America's Federal Reserve deserves much of the credit for saving the American economy from a deep recession and possible deflation. Many commentators (including *The Economist*) had fretted that low interest rates might fail to spur the economy, because consumers were already up to their necks in debt. But households have borrowed more to keep spending and America's economy is now growing briskly. So does America still need such low interest rates?

The resounding answer from most American economists is yes. Just look at the jobs figures (see article). Measured by employment rather than output, America has suffered its deepest downturn since the 1930s. Although the number of jobs has been growing since last summer, the pace of new hiring has been unusually slow. Moreover, the core rate of inflation stands at only 1%. Thus, conclude most economists, interest rates can safely stay where they are.

But for how long? By many measures, monetary policy is now looser than at any time since the 1970s when inflation took off (see article). Although consumer-price inflation remains low, the liquidity that the Fed has created by holding interest rates down is spilling over into asset markets. Some readers might believe that we are obsessed with bubbles. Yet even normal folk cannot ignore the vast amounts of froth around at the moment. Over the past 12 months, America's stockmarket has enjoyed its biggest gain in real terms for 50 years, and in the fourth quarter of 2003 house prices rose at their fastest rate for 25 years. Household debt rose last year at its fastest pace for two decades as consumers borrowed against those capital gains. This hardly looks like an economy that requires a massive monetary stimulus, which it will continue to get for as long as interest rates remain at 1%.

Japanese jitters

America's low rate of inflation and its weak labour market mean that policy needs to remain accommodative, but a modest rise in interest rates would still leave monetary policy extremely loose by past standards, and thus continue to stimulate demand and jobs. Jack Guynn, the president of the Atlanta Fed, a regional arm of the Federal Reserve, recently put the case rather nicely: “When a patient is seriously ill, the situation may call for prescribing a strong dose of medication. As the patient begins to recover, however, there is a need to recalibrate the dosage or to stop prescribing it entirely to avoid potential side effects.” We would argue that it is time for America to reduce its cheap-money dosage. A rise in rates could help to avoid another dangerous bubble by warning investors and homebuyers that asset prices cannot rise for ever.

One argument against raising rates is that the Fed risks repeating the mistakes of Japan in the 1990s. The Bank of Japan allowed deflation to develop when it held policy too tight, partly because it was worried about another asset-price bubble. Last year there did seem to be a serious risk of deflation in America. That is why the Fed was right to cut rates then. But conditions today in America are very different to those in Japan in the 1990s. Japanese house prices, and hence household wealth, were falling, and have continued to do so. America's monetary policy is much looser than Japan's ever was. Through most of the 1990s, Japanese interest rates remained higher than its nominal GDP growth—ie,

policy was restricting, not stimulating, the economy. And third, America's banks have long been in much healthier shape than Japan's.

In its desire to learn from Japan's mistakes, the Fed risks making a different sort of mistake. A rise in rates now could indeed hurt asset prices and so the economy. But the alternative, of allowing a bubble to inflate which is bound to burst eventually, would be even more painful. Until the Fed starts to lift interest rates, we will continue to watch warily for bubbles.

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The IMF and Argentina

Whose victory?

Mar 11th 2004
From The Economist print edition

Argentina has paid up, but the credibility of the International Monetary Fund is on the line

AP

THIS week, speculation has swirled around the International Monetary Fund. Two questions have been paramount. Would the IMF be able to assert its authority over Argentina, one of its biggest, and certainly its most rebellious, borrowers? And following Horst Köhler's decision to leave the IMF to stand for the German presidency, who will lead the Fund at one of the more awkward times in its history? In fact, this week's events did not provide a clear answer to either question, but they did show what the answers should be. If the IMF is to continue to play a useful role, it urgently needs to bring Argentina to heel, and to do that it will need a strong figure at the helm.

On March 9th, Néstor Kirchner, Argentina's popular president, pulled back from the brink of default on $3.1 billion his government was due to pay the Fund. He also agreed to show somewhat better faith in his negotiations with the private creditors who hold $88 billion-worth of debt, which his government no longer services. In return, the IMF promised to ask its board to approve another slice of money for Argentina from the $13.5 billion loan it agreed to extend to the country last September. Thus, in effect, Argentina will soon be re-united with the money it so reluctantly parted with this week.

Argentina wasted no time in declaring it had got the deal it wanted (see article). The IMF waited a day to make the counter claim that it had got much of what it wanted. In truth, both Mr Kirchner and the IMF got the deal the American Treasury wanted. Money will keep flowing; Argentina's recovery will continue apace. In the meantime, neither the Americans nor the IMF will be sucked too far into the fractious negotiations between Mr Kirchner and the legion of private creditors.

The IMF is understandably reluctant to get caught in the middle between Argentina and its private creditors. As a preferred creditor, it faces a conflict of interest. So, if Argentina's private creditors want to hold out for their pound of flesh, rather than accepting a quarter-pound, so be it. If Argentina wants to exile itself from the financial markets for ten years rather than five, so be it. But, as always, that cannot be the end of the story. The IMF is caught in the middle whether it likes it or not. By lending to Argentina, it is giving new money to a country that is not repaying the old money it owes to others. By its own rules, the IMF must withhold its funds if the country is not negotiating in “good faith” with its other creditors.

What counts as good faith? According to one oft-consulted source, faith is the evidence of things not seen. That's fine for theologians. But Argentina's creditors deserve to see some numbers. If Argentina's original offer of 25 cents on the dollar (less unpaid interest) is not good enough, the IMF should say what is acceptable, based on its own analysis of Argentina's ability to pay. If Argentina then does not comply, the IMF should cut it off—and the Americans should let it do so.

The right man

The IMF's relationship with Argentina has been a fiasco, and because of this it is facing one of the greatest challenges to its credibility in its history. Vacillation by America towards Argentina has been a big factor. If the IMF does not command the backing of its biggest shareholder, it will always be weak, hesitant and vulnerable to the kind of brinkmanship that Mr Kirchner has performed so skilfully. This has been true since the IMF's creation in 1945. Now more than ever, it needs a new chief who can win back

the Americans' respect and, when necessary, even stand up to them.

According to an unwritten rule, the job has always gone to a European. Rodrigo Rato, the Spanish finance minister who is emerging as Europe's leading contender, may prove to be a fine, tough-minded candidate. But that is almost incidental to the real reason his name is being put forward: it is Spain's turn. A Spaniard was due a big job—managing director of the IMF will do nicely, thank you.

This convention now looks hopelessly anachronistic, the relic of a time just after the second world war when Europe was a mendicant and Argentina, by contrast, was a relatively wealthy country. The IMF no longer needs someone to hold the hands of the Europeans. Now it needs someone who can hold his own with the Americans. That is why our nominee is Robert Rubin, America's former treasury secretary. Yes, he served under Bill Clinton. But he is widely respected across the political spectrum. His knowledge of international finance is unrivalled. He is experienced and tough. And his word would carry weight where it is most needed, in Washington.

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Russia's presidential election

How to check Vladimir Putin

Mar 11th 2004
From The Economist print edition

What the West should be doing about Russia

Get article background

AFP

HE MAY be loved at home, but he looks ever lonelier abroad. This weekend Vladimir Putin seems sure to be re-elected Russia's president by a landslide, not least because he has trampled down what feeble opposition there is. His second term has, in effect, already begun (see article). But in the West, his erstwhile friends are turning more distant.

A year ago, the world's leaders were courting Mr Putin to support or oppose the war on Iraq. Last September America's George Bush, no less, fulsomely praised Russia's democracy and its respect for the rule of law. In November it was the turn of Italy's Silvio Berlusconi, presiding over a European Union-Russia summit, who spoke up for Mr Putin when journalists posed questions about the same issues. But by January the American secretary of state, Colin Powell, was berating the Russians for abusing these virtues. Last month the European Commission issued a stinging report on the breakdown of the bilateral relationship, with harsh words for the Russian side.

Poor Mr Putin; it is not even all his fault. Mr Bush needs to pacify the anti-Putinists at home, whom he had happily ignored before this election year. The European Union's enlargement on May 1st was bound to trigger disputes over such matters as tariffs and visa requirements—as well as bringing into the EU countries that have good historical reasons to be suspicious of Russia. Most of the disputes will surely be ironed out once May 1st has passed.

Yet the West is still right to fret over the direction Mr Putin's Russia is taking. Last December's parliamentary election delivered near-total control of the Duma and its committees to the pro-Putin United Russia party. Investigations and arrests of business magnates who have meddled in politics have shown that the rule of law tends to apply only when it suits the state. Nobody is fooled by claims that October's rigged election in strife-ridden Chechnya, installing Akhmad Kadyrov as its president, was a sign of “normalisation”, unless normalising means turning murderous anarchy into an institution. And the shrinking freedom of the press and the rising influence of the security services have gone too far to ignore.

The gap between optimists and pessimists over Russia, always big, is thus widening again. The pro-Putin argument is that he has brought stability, permitting an economic boom (albeit one that owes a lot to high oil prices and the recovery from the 1998 crash); that he is strengthening a state which was dangerously weak, allowing him to push reform faster; and that a huge and unmanageable country such as Russia cannot develop in a few years the democratic institutions that took the West a few centuries. Indeed, Russia is doing no worse than average among former Soviet countries, to say nothing of the developing world. Besides, Mr Putin is wildly popular at home. Why not cut him some slack?

The answer is that, even if Mr Putin proves a champion reformer in his second term, future leaders may be a lot worse, and he is creating a state in which their power risks being totally unchecked. This will make Russia not strong, as Mr Putin says he wants, but weak. And many existing problems that he has failed to tackle already pose threats to the West: the deterioration of the armed forces, the decaying nuclear arsenal, the spread of AIDS, home-grown terrorist networks, and human-rights disasters (Chechnya, above all) are sending streams of refugees abroad.

Put your money where your mouth is

So what to do? It is good that western leaders have stopped pretending that Russia is a free democracy. But nagging at summits counts for little. Russia does, however, want more concrete things, such as easier visas. Linking unrelated issues is a standard Russian negotiating tactic that can also be used in reverse. So the West should make concessions only in return for changes that make Russia more pluralist.

Second, the West could do more to encourage pluralism by giving direct help to Russian media and social organisations. The Russians dislike this sort of thing: last year, they booted out America's Peace Corps, and they have harassed foreign human-rights and environmental activists. The West could make acceptance of such programmes a condition for other concessions. America's spending on pro-democracy programmes is, proportionately, lower in Russia than it is in Georgia or Ukraine, where civil society flourishes by comparison. Since 2002, overall funding under America's Freedom Support Act has dropped steadily, and it will fall again next year. That is not surprising, given other distractions. Yet compared with the amounts being spent in Iraq, democracy programmes in Russia and other former Soviet countries are minuscule. Even a small increase could do much to give ordinary Russians a greater say in their future.

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Financial regulation

The moral of Equitable

Mar 11th 2004
From The Economist print edition

If something looks too good to be true, it generally is. That includes regulation

PA

THE collapse of Equitable Life, a mutually owned assurer set up in 1762, has offered lots of choice over whom to blame: managers, board directors, regulators, the Labour government, the Tories. That is, in part, because the origins of this affair go back a decade or more. It is also, though, because life assurers are so complicated, a fact that is born out by the 800-plus pages of the official report into the affair published by Lord Penrose, a senior judge, this week (see article). In the end, though, there is another reason, too: it is that attempts to regulate financial companies, though designed to make things clearer, can actually end up making them fuzzier.

The time-honoured way to make investors careful and managers dutiful is for collapses to happen from time to time. When they do, investors are reminded that the people best suited to monitor their money are themselves and managers see that failures of duty, or outright crimes, lead to dismissal, loss of reputation, or jail. What Equitable did, in essence, was to offer guaranteed returns it could not fulfil and to pay bonuses to policyholders that depended not on investment income but on recruiting new investors. Its offers were too good to be true, or at least to be sustained. *Caveat emptor* is thus the traditional, and correct, reaction: let the buyer beware.

Lord Penrose's report largely falls within that tradition, and the government's reaction to it entirely so. Lord Penrose handed out blame widely, but laid the largest part of it on Equitable's managers and directors. He said that regulatory weaknesses were a secondary issue—although he used withering words to describe the poor structure and standards of regulation. Consequently, although aggrieved policyholders are likely to try to sue the government as well as the managers, ministers have rejected the idea of compensation.

So far, so traditional, and so financially correct. But it is not quite as simple as the *caveat emptor* principle might suggest. When a government seeks to regulate a financial industry, that regulation itself affects the behaviour of investors, and must bring with it responsibilities. While Equitable Life was heading for its disaster, successive governments were proudly talking about setting up tighter and better regulatory systems, especially for firms selling to retail investors. Such talk was designed to encourage retail investors to feel that they could trust regulated institutions and thus to put more of their savings in those hands. It may well have encouraged policyholders to put their money in the Equitable, or to leave it there despite doubts. For regulation was, after all, being improved.

What Lord Penrose finds is that it wasn't, or not rapidly enough. And he finds both that the system was poor and that officials did their jobs complacently or feebly. In 1989 a young opposition MP called Gordon Brown lobbied the then Tory government to compensate investors in a failed firm, Barlow Clowes, after the Parliamentary Ombudsman said regulators had been “insufficiently rigorous and inquiring”. That seems to have been true again. It does not mean that today's chancellor should compensate investors for all, or even most, of their losses. But it does mean that the government ought to take some of the responsibility, perhaps by helping out the hardest-hit investors. It ought only to do so if it acknowledges mistakes and says what it plans to do to prevent them happening again. Another tradition, though, is likelier to prevail: some compensation will eventually be paid, but with no admission of fault. That is what happened with Barlow Clowes.

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Letters

Mar 11th 2004
From The Economist print edition

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Gay marriage, debated

SIR – You say that homosexual marriage should be legalised, based not on any economic rationale but on vague notions of "equality" and "liberty" ("The case for gay marriage", February 28th). You bring up the disingenuous argument of 1960s race laws that existed primarily in the South. That discrimination involved a repression of civil liberties based solely on ethnicity. Strong economic cases were made that involved increasing the scope of economic freedoms for blacks and women and allowing heterosexual couples, regardless of ethnicity, to marry since the government has an overwhelming interest in the procreation of its citizens.

In the South, we are stereotyped as homophobes and Bible thumpers but most of us do not view homosexuals as second-class citizens. However, gay relationships should be viewed as second-class in comparison with heterosexual marriages. We do not believe that America has vested economic, political and cultural interests in the extension of marriage to homosexuals.

John Fioranelli
Oxford, Mississippi

SIR – Gay marriage is about equality. There is nothing conservative about denying gays equal benefits and equal protection of the law. And there is nothing liberal in advocating that they receive the same privileges as any other normal human being. It should be recognised that the state's legitimacy derives from its people, that homosexuals are people, and what they do in private, or as an assertion of their conscientious beliefs, is not subject to majoritarian bullying.

Paul Tan
New York

SIR – One of the pillars of western civilisation is the notion that citizens should be deprived of their liberty only when it threatens the liberty of another. Gay marriage clearly does not pose such a danger. Like those who opposed Jim Crow, apartheid or the enfranchisement of women, when each was controversial, your support for gay marriage will surely end up on the right side of history.

Matthew Murphy
Houston, Texas

SIR – I agree with your appeal to J.S. Mill's "harm principle" on the matter of gay marriage. Should a set of loving and consenting adults wish to exercise such a right, no harm could be done to anyone else. I see no reason to stop at gay marriage. What of another traditionally controversial matter: polygamy. If, say, three or more loving and consenting adults wish to wed, how should it be denied if modern society is to be consistent, and the principles of harm and equality embraced?

Maximilien Valente
Tuscon, Arizona

SIR – The support for a constitutional amendment banning gay marriage may be one of the rare times George Bush has got it right. To legalise gay marriage would be to give too wide or simplistic an interpretation to equality rights and go too far in undermining collective or societal wellbeing, to which

these rights must sometimes be subordinated. Gay marriage will, among other things, erode a fundamental institution, namely the family, because marriage often is about children. Furthermore, although marriage has been weakened, nothing proves that expanding it would actually make it stronger or that gays would be less inclined than their heterosexual counterparts to divorce or cheat.

Dimitrios Nassios
Montreal

SIR – For many years there was no dispute over the definition of marriage in America and it was convenient for the states to use the term to describe the legal union of a man and a woman. However, in most states these are in fact civil unions. In the Catholic church, for example, marriage is a religious sacrament carrying no secular legal significance. Massachusetts does not recognise a religious marriage ceremony performed without benefit of a state-issued marriage licence. Conversely, two people joined in a civil ceremony are not married in the eyes of the church. Perhaps the states should abandon their use of the religious term “marriage” and instead adopt the more accurate “civil union”, thus respecting a true separation of church and state.

Gregorio Corrado
Dover, Massachusetts

SIR – American law should not allow government officials to perform marriage rituals. Government should license civil partnerships just as it does business partnerships, in which the sexes of the partners are unimportant. Partners would be free to seek a religious marriage. Some churches would perform gay marriages, some would not. Controversy concerning gay marriage would be between religious leaders and not involve officialdom.

Donald Gerber
Stockton, California

SIR – Your case for gay marriage misses the point. The real issue is whether its people or its courts will rule America. The vast majority of Americans do not support gay marriage. For the courts and elected officials to force this change upon everyone else is profoundly undemocratic.

A federal marriage amendment that forbade the courts from requiring gay marriage but permitted the people to enact it through referendums or their legislatures is most desirable. But if you choose to support taking this path through the courts, then you are advocating a more noxious form of inequality, one that grants unequal power over an entire society to the special interests favoured by an activist elite judiciary over the interests of the masses.

Jeffrey Burk
Washington, DC

SIR – You implicitly assume that the quintessential feature of marriage is sexual gratification. Wrong. Procreation and socialisation of children within the family provide the sole justification for the institution's unique status in society. The stigmatisation of homosexuality is unacceptable but the contemporary urge to equate homosexual and heterosexual unions probably has its origins in the inability of modern societies to live comfortably with the phenomenon of homosexuality. To offer marriage reflects the search for legitimisation of homosexual unions—but there are other and better paths to the same end.

Richard Tilly
Dettelbach, Germany

SIR – Allowing gays the right to marry will not weaken the institution, it will surely strengthen it. Those who are opposed cite many reasons, however they are of one nature; a punishment for not thinking as they do. Heterosexual marriages serve mainly as legal and social recognition of the relationship between two people. We should certainly bring gays into the fold as quickly as possible. It will remove another artificial distinction used to discriminate against people who do not reflect our own conditions.

Eric Dickhaus
Montebenichi, Italy

SIR – I know the couple on the cover. They are a perfect choice—and not just because they are good looking. Ian and Daniel are raising two children in a loving, stable, suburban home. What could be more

American, or a better demonstration of conservative values? I urge anyone who is against gay marriage to look in the mirror. Why deny someone else the same right you enjoy? Purge the hatred from your heart. The right of gays to marry is self-evident.

Devorah Blachor
Jerusalem

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Pakistan

The man in the middle

Mar 11th 2004 | ISLAMABAD
From The Economist print edition

One of America's most important partners in the war against terror, Pakistan is also one of its biggest worries

Get article background

AS AN American ally, Pakistan is an embarrassment. Its ruler, General Pervez Musharraf, seized power in a bloodless coup in 1999. His efforts since then to legitimise himself have been marred by a farcical referendum, electoral manipulation, and concessions to Pakistan's Islamist extremists. The country has been the launch-pad for terrorist attacks in India. Worse still, it has proved to be the headquarters of a global mail-order business in nuclear-bomb technology, with Libya, Iran and North Korea as its known customers. If not a member of George Bush's "axis of evil", Pakistan seems to have been doing its best to meet the eligibility criteria.

So when Colin Powell, America's secretary of state, visits Pakistan on March 17th, he will have some harsh words for his hosts. But only in private. Since September 11th 2001, Pakistan has been an irreplaceable American partner. Its airspace and logistical support were essential for the war against the Taliban in Afghanistan in late 2001. Its co-operation remains vital to the continuing hunt for Mullah Omar, the Taliban's leader, and for Osama bin Laden. In an operation now under way in the remote and lawless areas along the Pakistan-Afghan border, Pakistani soldiers are trying to drive al-Qaeda remnants into the arms of their American allies.

America and Pakistan have strongly denied reports of an explicit deal to allow American troops to operate from Pakistan in return for a lenient approach to Pakistan's proliferation sins. But November's presidential election makes catching Mr bin Laden an ever more important symbolic moment in the "war against terrorism"—an American general has said it will happen this year. Whether or not Americans are crossing the border, their spyplanes are certainly patrolling it. And as the winter snows melt, the co-ordinated attack has intensified. In what is called a breakthrough, the 70,000 Pakistani soldiers will be helped by hundreds of Zalikhel tribesmen from Waziristan, who agreed on March 7th to join the hunt for fugitives and those harbouring them.

Policy towards Pakistan lays America open to the charge of hypocrisy. On February 25th, America's State Department issued its annual human-rights report. A damning section on Pakistan noted that the government was dominated by the army and the intelligence services, and its human-rights record remained poor. The next day, Mr Powell appeared before Congress to justify the department's budget for the coming year, including $5.7 billion in assistance for countries "that have joined us in the war against

terrorism". Top of the list, with $700m, was Pakistan.

Here comes the hero

Behind America's willingness to tolerate Pakistan's undemocratic ways lies the hope that, under General Musharraf, it can deliver not just al-Qaeda fugitives, but stability in the world's only nuclear-armed Islamic Republic. A reminder that Pakistan will not easily relinquish that status came this week when it tested a new missile capable of carrying nuclear warheads to most Indian cities. The fear is that the country might lurch into Islamist extremism, and its nuclear technology fall into even more dangerous hands. This gives rise to a paradox: that the army, the bastion against the fundamentalist threat, has an interest in keeping that threat alive.

The general is supposed to be the man who can resolve these contradictions, as indispensable to Pakistan's future as Pakistan is to America's fight against terrorism. In this version of the story, he plays the hero: paving the way for full restoration of democracy, stemming the slide into Islamic fundamentalism, plugging the leaks in the country's nuclear-technology apparatus, and reaching an historic peace with the old enemy, India.

Attempts on his life have helped foster this image. Would-be assassins last December included two suicide bombers—an Afghan and a Kashmiri. Much seems to hinge on his continued survival. "It's election year," says Samina Ahmed, Islamabad representative of the International Crisis Group (ICG), an independent research outfit, "and the Americans have put all their eggs in Musharraf's basket."

India has distrusted the general since 1999 when, as army chief, he oversaw a military adventure in the Kargil area of Kashmir at a time when peace hopes had been kindled. But it too seems to have come round to the idea that Pakistan's president may be a better partner in peace talks than any likely replacement. Atal Behari Vajpayee, India's prime minister, has expressed concern for his safety.

Four dangerous perceptions

While acknowledging that he is taking big political and personal risks, many Pakistanis take a less charitable view of General Musharraf. They see him as just the latest in a line of Pakistani soldiers to grow weary of the uncertainties of the democratic process, and to override it. Like one such predecessor, General Zia ul Haq, who ruled from 1977 to 1988, General Musharraf has bolstered his position at home by building up the country's small but passionate extremist Islamist fringe. Yet, to justify his dictatorship to the Americans, he points to the threat posed by these very same Islamists.

This secular, democratic general, photographed cuddling pooches, and said to be partial to a peg of whisky, seems at times more popular with the mullahs than the politicians. On January 17th, he made an inspirational speech to a joint session of the two houses of parliament. Noting that Pakistan's Islamic Republic was perceived overseas as "intolerant and pro-extremism", he called for a "*jihad* against extremism". His speech was almost drowned out by the barracking of elected parliamentarians. A month later, undaunted, he took the same message to an even more forbidding audience—a gathering of 2,000 *ulemas*, or Islamic teachers. From them he received a standing ovation.

"Our generals have been wrong on everything," says Pervez Hoodhbhoy, a peace activist and professor of physics at Islamabad's Quaid-i-Azam university. His charge-sheet is convincing. The army's backing of the Taliban ruined Afghanistan, and has left those parts of Pakistan dominated, like the Taliban, by ethnic Pushtuns, deeply disillusioned by the decision to help America's war. The generals' acquiescence or active connivance in the proliferation of nuclear technology (or even, just conceivably, their ignorance of it) may have endangered the whole world. Their provision of money, training and cannon-fodder for the 14-year insurrection against Indian rule in Kashmir brought misery to that land, put Pakistan on the wrong side in the war against terror, and utterly failed in its objectives.

Curiously, General Musharraf seems to share Mr Hoodhbhoy's analysis. Amid the cat-calls in parliament he was citing the very same three issues, along with Islamic extremism, as “four dangerous perceptions” to which Pakistan is subject. Correcting them, he suggested, might “save the country”, and he suggested remedies. Many Pakistanis, however, doubt his seriousness in pursuing these remedies. They see an astute political tactician, who has yet to take the strategic decision to abandon failed policies.

On Afghanistan, the president promised parliament a “massive operation against those foreign elements in our border areas”. Pakistan is credited with doing much to root out al-Qaeda fugitives, both from its wild fringes and from the cities where some have hidden among the multitudes. But it has done less to help wipe out the vestiges of the Taliban.

That is perhaps not surprising. The Afghan fundamentalists were, after all, nurtured by Pakistan's spooks, the Inter-Services Intelligence (ISI), and retain much sympathy among their Pushtun ethnic kin across the porous border. But there are also suspicions that Pakistan is playing a double game in Afghanistan, helping the Taliban to survive to insure against the emergence of an unfriendly regime in Kabul.

In 2001, when General Musharraf dumped the Taliban in favour of America, there was speculation that the switch would provoke such anger among Pakistan's Islamists that he might be swept from power. There were indeed some large and unruly protests, but none that came near to mounting such a challenge.

Similarly this year, the general weathered another storm: the public humiliation of a great national hero, Abdul Qadeer Khan. The exposure of Mr Khan, a metallurgist, as the hub of a network of nuclear-technology proliferation has left many seeing him as a fall-guy for crimes that could not have been committed without the knowledge of the army top brass. But his televised confession did at least give General Musharraf a prop on which to rest his denials. Some Pakistanis joke that Mr Khan, who brought Pakistan the bomb and so ensured its survival alongside a hostile neighbour, India, has, by taking the rap, saved the country for a second time.

He also saved himself. In deference to the scientist's enormous prestige, the president let him off scot-free (“conditionally”). Remarkably, the American and British governments, in public at least, were happy to treat this as an internal Pakistani affair. Just as remarkable to some observers was the muted reaction in Pakistan to the debunking of a national icon. Strikes called in his support soon fizzled.

But Khurshid Ahmed, chairman of the Institute of Policy Studies, an Islamabad think-tank, argues it would be “highly superficial” to say that General Musharraf has escaped a popular backlash. According to Mr Ahmed, who is also a senator for Jamaat-i-Islami, part of the Muttahida Majlis-i-Amal (MMA), an alliance of six Islamist parties, “A.Q. Khan is loved by the common man. Musharraf is hated.”

That may be true. But it does seem that public opinion allows the generals more leeway than they prefer to admit. “They put their hands behind their backs”, says Mr Hoodhbhoy, “and pretend they are tied.” He thinks this may even be true of the policy stance that Pakistanis see as the most fundamental of all: support for the struggle for self-determination of Muslims in Indian-controlled Kashmir.

Solving Kashmir

Since 1990, one form that support has taken has been the clandestine sponsorship of armed insurgency. General Musharraf has repeatedly promised to stop “cross-border infiltration”, most recently in a breakthrough meeting with Mr Vajpayee in January. This time, he may just mean it.

He is under pressure from America and from Pakistan's other important ally, China. When he visited Beijing in November, he was left in no doubt that his hosts, who have been vital providers of arms, and of missile and nuclear technology, were fed up with Pakistan's cosseting of *jihadis*. Besides destabilising Afghanistan and liberating Kashmir, some holy warriors also want to bring down Chinese rule in what was briefly East Turkestan and is now the Chinese region of Xinjiang.

Indian officials are reserving judgment. Infiltration of armed militants from Pakistani- to Indian-administered Kashmir has abated. But in the winter months anyway, Himalayan snow slows it to a trickle. There is little sign yet that Pakistan is dismantling the dozens of militant training camps.

The way to dispel suspicions about Pakistan's activities in Kashmir, General Musharraf told parliament, is “to find its just solution”. That is the hope held out by the start last month of a series of meetings on Kashmir and other bilateral issues between senior Pakistani and Indian officials. But a solution will not be possible on Pakistan's terms: a plebiscite in the former kingdom of Jammu & Kashmir, half of which is now under Indian administration, on the region's future.

It is often argued that Pakistan's room for negotiation is limited by popular opinion, formed by decades of indoctrination, starting in the schoolroom, about the injustice and cruelty of Indian rule in Kashmir. But some Pakistanis dispute this. Outside parts of Punjab province, home to many of the Pakistani soldiers and militants who have died in Kashmir, many people are weary of the whole conflict, realise it cannot be won and hanker after a lasting reconciliation with India.

Those moderate mullahs

Peace with India is even popular with all but an extremist fringe of Pakistan's Islamist parties. The MMA's Mr Ahmed remains suspicious of Indian intentions, saying that “Pakistan cannot, must not, will not do a deal that the people of Jammu & Kashmir cannot accept.” But he insists that the MMA wants peace and is a force for moderation, having no sympathy at all for “the Taliban model”.

The MMA is partly an invention of the army and the ISI. In the October 2002 elections, the generals were keen not to see too strong a performance from the two main secular opposition parties: the Muslim League, led by Nawaz Sharif, whom General Musharraf overthrew in his coup; and the Pakistan People's Party (PPP) of Benazir Bhutto, another former prime minister. So they impeded their campaigns, which already suffered from their leaders' absences in exile, and helped forge a coalition of the usually fractious Islamist fringe.

This unlikely alliance, capitalising on the fury of Pakistan's Pushtun minority at the war in Afghanistan, enjoyed unprecedented success. It won only 11% of the vote. But that was enough to give it 60 out of 342 parliamentary seats, as well as control of one of the four provincial governments, in North-West Frontier, and a share in a coalition (with General Musharraf's loyalists) in another, in Baluchistan.

For a year, the democratic façade the elections were supposed to produce was obscured by parliament's refusal to ratify General Musharraf's self-serving changes to the constitution. These gave him, as president, unprecedented power, and will, through a new National Security Council, entrench the army's role in politics. Last December, he struck a deal with the MMA. In return for his promise to stand down as army chief by the end of 2004, it accepted his presidency until 2007, and his proposed constitutional changes. Not for the first time, a general found a bargain with the Islamists more palatable than making concessions to the secular opposition.

Optimists hope that this was a one-shot deal. Amending the constitution required a two-thirds majority in parliament. Governing does not. But that is to overestimate General Musharraf's faith in his own supporters, and to ignore the frailty of their parliamentary majority. The Pakistan Muslim League (Q) faction that backs him is less a political party than a random gathering of toadies and chancers. Both Mr Sharif and Miss Bhutto face arrest if they return to Pakistan. But they pose more of a real threat to the president than do the Islamists. Miss Bhutto in particular has been vocal in exploiting General Musharraf's nuclear embarrassment. So he continues to need the MMA.

At the very least that will make it difficult for the government to reverse Islamic legislation, such as a much-abused blasphemy law, or the *Hudood* ordinances, one effect of which is that 88% of women in Pakistani prisons were convicted of fornication, probably because they had been raped. An ICG report published in January, called “Unfulfilled Promises”, highlights the government's continued failure to regulate the thousands of religious schools, or *madrassas*, the most radical of which have spawned the Taliban and Pakistani *jihadis*. The army's failure to take on Islamic extremism means, in Ms Ahmed's cruel summary, that “America is backing the military that is backing the mullahs that are backing the *jihadis*.

That, in essence, is the Pakistani conundrum. At home, it means that General Musharraf deals with Islamist parties in preference to the Muslim League and the PPP, whose policies are far closer to those he

professes. The sanguine view is that, because he represents the army, whose senior command he has shuffled in his image, and the army remains the ultimate arbiter of power, he still represents the best chance of achieving the fundamental reforms Pakistan needs.

A commando still

The present government's economic record, at least, deserves respect. And no civilian leader, none of whom has ever completed a term in office, would be able to make the necessary about-turns on Afghanistan and Kashmir. The gloomy view is that the general's power will fade when he takes off his uniform, bringing a new round of political uncertainty. Or perhaps there will be another constitutional change, or, according to the latest rumour, promotion to “Field-Marshal”.

Ever since seizing power, General Musharraf has spoken passionately and persuasively of the need to shed the backward-looking, repressive and anti-western influence of extremist Islam. Abroad, his standing rests on his credentials as Pakistan's saviour from that strategic threat. Yet to stay in power, and to burnish those credentials, he needs to offer tactical concessions to the extremists. Modernisers and fundamentalists alike may be disappointed in him. The MMA's Mr Ahmed could be speaking for both sets of critics: “We gave him the opportunity to become a statesman; he remains a commando.”

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About sponsorship

The economy

Smile, these are good times. Truly

Mar 11th 2004 | WASHINGTON, DC
From The Economist print edition

Corbis

Anxiety is turning to paranoia about jobs. Take a deep breath: most Americans have rarely had it better

Get article background

ANOTHER month, another dismal set of job figures. America pulled out of its last economic recession way back in November 2001, yet the country's “jobs recession” finished only last autumn, by when 2.7m jobs had been lost since the start of the slowdown. Now, though economic growth has bounced back, new jobs refuse to do the same in this, the third year of recovery. In February, a mere 21,000 jobs were created, according to the official payroll survey, at a time when George Bush's economists forecast 2.6m new jobs for 2004. Mounting alarm at the White House, and increased calls for protection against what a growing number of Americans see as the root of most ills: the “outsourcing” of jobs to places like China and India. Last week the Senate approved a bill that forbids the outsourcing of government contracts—a curious case of a government guaranteeing not to deliver value-for-money to taxpayers. American anxiety over the economy appears to have tipped over into paranoia and self-delusion.

Too strong? Not really. As *The Economist* has recently argued—though in the face of many angry readers—the jobs lost are mainly a cyclical affair, not a structural one. They must also be set against the 24m new jobs created during the 1990s. Certainly, the slow pace of job-creation today is without precedent, but so were the conditions that conspired to slow a booming economy at the beginning of the decade. A stockmarket bubble burst, and rampant business investment slumped. Then, when the economy was down, terrorist attacks were followed by a spate of scandals that undermined public trust in the way companies were run. These acted as powerful headwinds and, in the face of them, the last recession was remarkably mild. By the same token, the recovery is mild, too. Still, in the next year or so, today's high productivity growth will start to translate into more jobs. Whether that is in time for Mr Bush is another matter.

As for outsourcing, it is implausible now, as Lawrence Katz at Harvard University argues, to think that outsourcing has profoundly changed the structure of the American economy over just the past three or four years. After all, outsourcing was in full swing—both in manufacturing and in services—throughout the job-creating 1990s. Government statisticians reckon that outsourced jobs are responsible for well under 1% of those signed up as unemployed. And the jobs lost to outsourcing pale in comparison with the number of jobs lost and created each month at home. Even here, the rate of job “churn” has, for unclear reasons, been falling since mid-2001.

Waiting for the job recovery might be a good time to take a broader measure of the material well-being of Americans. Their condition is widely held to be perilous. The economy, it is said, is being “hollowed out” by international competition and the connivance of business and political elites, creating “two Americas”, one rich, one poor. Median income of American households, commentators often say, has been stagnant, though census figures give a rise of one-fifth since 1980. Lou Dobbs, on CNN's “Lou Dobbs Tonight”, is just one media fabulist who makes his living by claiming that, as America is being “exported”, so the well-being of middle Americans is in a parlous state.

It is a good story, but false on many levels. For a start, this slow growth in median income overlaps with a scale of immigration into America outpacing all immigration in the rest of the world put together. Many immigrants have come precisely to take up the lowest-paid jobs. As a result, in the 20 years to 1999 some 5m immigrant households were added to those defined as below the poverty level. Yet among native-born Americans, poverty rates have declined steadily since the 1960s. In the case of black families, median incomes have recently been rising at twice the pace for the country as a whole.

Strip out immigrants, and the picture of stagnant median incomes vanishes. Indeed, for the nine-tenths of the population that is native-born, middle-income trends continue their improvement of the 1950s and 1960s. For these people, inequality is not rising, but falling. Gregg Easterbrook cheekily points out in his excellent recent book, “The Progress Paradox” (Random House), that if left-leaning Americans seriously want better statistics about middle-income gains, then they should simply close their borders.

Mr Easterbrook points to something else about the figures for median household income. A quarter-century ago a typical household had three members. Today, it has just 2.6 members. Simply by this effect, median households have seen their real incomes rise by a half.

Another measure of improved well-being is increased access to jobs. Between 1980 and 2002 Americans in work rose by over 40%, a far brisker pace than the 26% growth in the population. Some three-quarters of the adult population are now in work, close to a record and some ten percentage points higher than in Europe.

One reason is more teenagers in work: over the same period, teenage employment grew by nearly two-thirds. As Andrew Hacker points out in the *New York Review of Books*, teenagers are a significant source of low-paid labour in supermarkets, shopping malls and fast-food franchises. Exploitative? Hardly, since it helps them buy cars and independence.

Yet the chief reason for higher participation is more women in work, notably married women. Very roughly, in the past half-century the average weekly hours worked by married women have tripled, while hours worked by men and single women have stayed about constant. The usual reason given is that married women have had to work so that families can make ends meet. A recent study* by three economists, Larry Jones, Rodolfo Manuelli and Ellen McGrattan, published by the Federal Reserve Bank of Minneapolis, punctures that notion. They find that the tripling of married women's hours can be explained entirely by a gender wage-gap that has narrowed. That is, a smaller pay differential between men and women gives married women sufficient incentive to invest in education and careers.

Of course, many American households struggle to survive on minimum-wage jobs with employers who do them few favours. We will look at low-paid work in a future week. What this piece attempts to argue is that the middle is far from being hollowed out. As Mr Easterbrook emphasises, most Americans have at least two cars and their own house, and they send their children to college. Certainly a bigger share of household income is being spent on things that did not feature 50 years ago, such as high-tech health care. But it has brought the benefit of a longer and better life, and not just for the old: since 1980, infant mortality has fallen by 45%.

At the end of last year, America's household wealth, at $44 trillion, passed the previous peak set in early 2000. With Americans wealthier than ever, why are many so anxious? Perhaps they think prosperity will vanish in a puff of terrorist smoke or a housing-market collapse. Perhaps, tentatively, the suburbs, in which half of Americans live, are to blame. For the suburbs fulfil the American dream, but at a price. On the one hand comes greatly increased space: the typical American dwelling now has two rooms per person, double Europe's level or America's half a century ago. On the other hand, expectations grow for every family member to have her own computer, DVD player—and another car. Pile on top of that an annual family holiday by plane, a bass-fishing boat (Americans spend $25 billion a year on boats and jet-skis) and regular meals out (Americans now spend nearly half their food dollars in restaurants). The American dream may cost less than it used to, but it still comes dear. And in a sated society, there is less and less new to look forward to.

*To be found at:

www.minneapolisfed.org/research/sr/sr317.html

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About sponsorship

The electoral week

Primary colour

Mar 11th 2004
From The Economist print edition

And Churchill painted

“I wrote a poem once about a great encounter I had with a deer early in the morning that was very moving.”

Mr Kerry on his hobbies, New York Times, *March 7th*

Cheney jokes shock

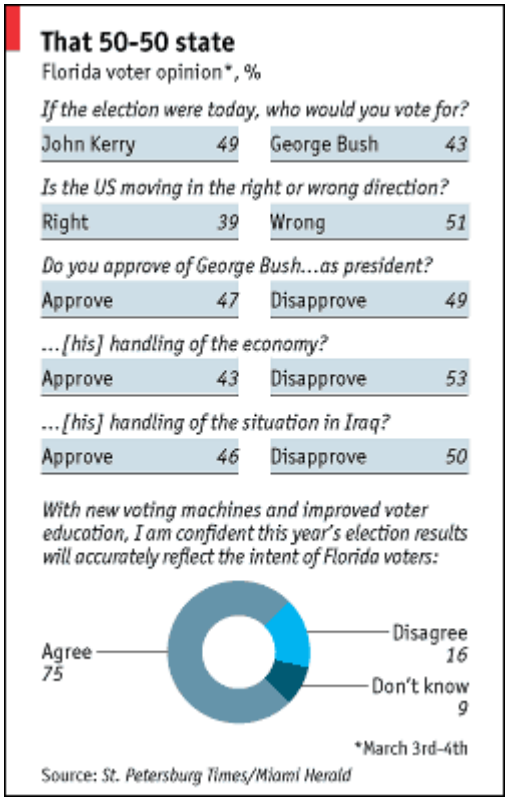
“Here's an unsigned question. ‘Mr Vice-President, don't you think it's time to step down and let someone else add new energy and vitality to the ticket?' No...I don't. And Rudy [Giuliani], you need to do a better job disguising your handwriting.”

Dick Cheney at the annual Gridiron dinner, New York Daily News, *March 7th*

Anarchy in the USA

“I've probably sold 50,000 records in Florida. If 500 of the fans had voted in 2000, it could have been a different election.”

Fat Mike, of punk band NOFX, on Punkvoter.com, an organisation which plans to register 500,000 young people to vote against Mr Bush. Newsweek, *March 15th*



Deny, deny, deny

“I've decided to dramatically reduce the TV time so people don't think I'm campaigning for it.”

Bill Richardson continues to deny he wants to be John Kerry's VP. Albuquerque Journal, *March 7th*

Caricature of a candidate (1)

The Dating Game

“I've got her number, and I've been meaning to call.”

On “Jay Leno”, Dennis Kucinich, presidential candidate and bachelor, wins a date with actress Jennifer Tilly. Dallas Morning News, *March 6th*

Caricature of a candidate (2)

“John Kerry is so stiff. You sort of see him sitting at home with a powdered wig watching C-SPAN. For John Kerry, being rebellious is having red wine with fish.”

Matthew Cooper, of Time *magazine, at the US Comedy Arts Festival. Associated Press, March 6th*

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Immigration

Into the suburbs

Mar 11th 2004 | NORTHLAKE, ILLINOIS
From The Economist print edition

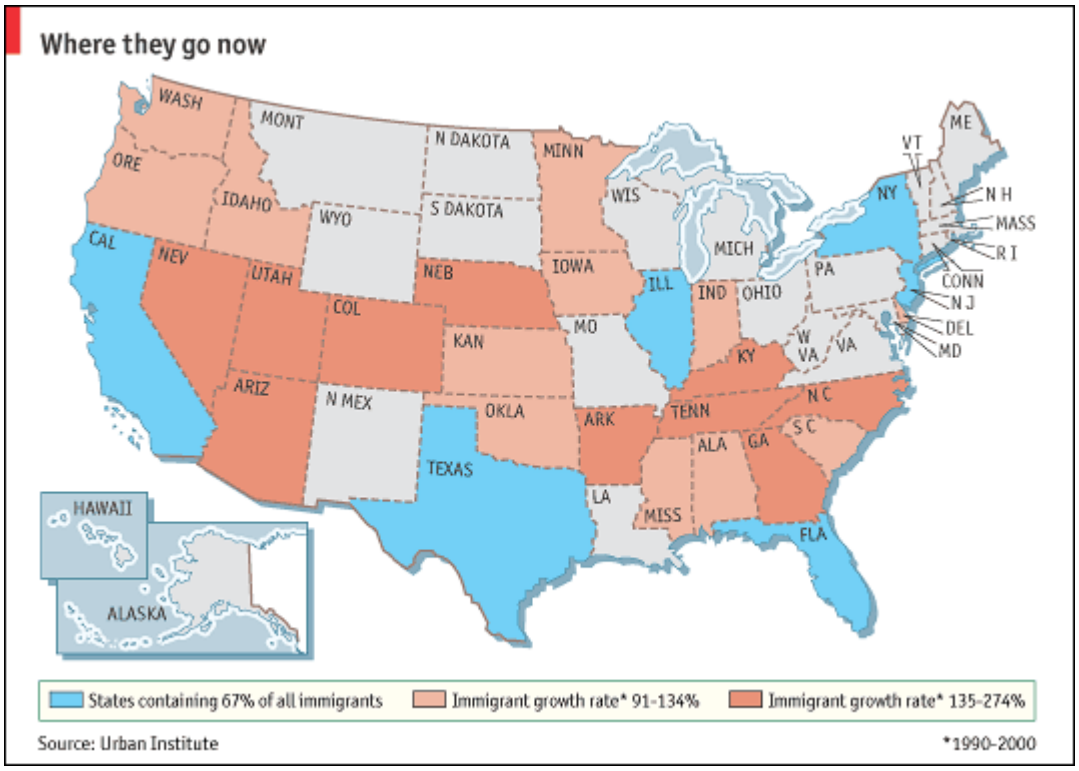
New arrivals are bypassing the cities. This brings both problems and opportunities

Get article background

TO SEE the changing face of America's suburbs, visit the Catholic church in Northlake, west of Chicago. St John Vianney holds three masses a week in Spanish, usually led by a priest from a remote region in the Andes. There is also a weekly mass in Filipino, a monthly mass for parishioners from India, and a Latin service for traditionalists. In April the church's young Latinos will organise a Good Friday procession through the streets.

Northlake is not unusual. Nearby Lemont has a Hindu temple; Bridgeview has a mosque. America's suburban dream—single-family homes, a garden for the children to play in, serenity and distance from the hubbub of the city—is no longer confined to middle- and upper-class whites. A growing number of immigrants want a piece of the dream, too.

By 2000, more immigrants in America's metro areas lived in suburbs than cities, and their numbers were growing faster. The shift is occurring not only around old immigrant entry-points such as New York or Chicago—which added about 416,000 immigrants to its suburbs in the 1990s, the largest number in the country—but also in places like Las Vegas, Raleigh-Durham and Washington, DC.



According to a recent study by Audrey Singer of the Brookings Institution, the suburbanisation of immigrants is happening fastest in “emerging gateways”—Atlanta, say, or Dallas—where sprawl has taken off and traditional immigrant enclaves were small or non-existent. In other words, more new arrivals go directly to suburbia, bypassing the central cities. This marks a shift from the settlement patterns of much of the past century. Now, as sprawl consumes an ever-widening swathe of cornfields

and meadows, immigrants are close behind. Who else will cut the grass, clean the houses or flip the burgers of suburbanites?

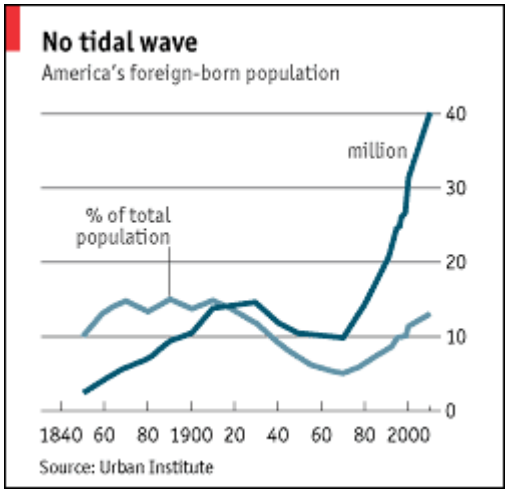
The spreading immigrant population (about 11% of the total in 2000) is hardly homogeneous. Two large and distinct groups dominate: skilled, educated people who arrived legally and tend to speak English; and poorly educated, unskilled people, who speak little English and are often illegals. Indian doctors and engineers represent the first group, Mexican day-labourers the second. The exploding Mexican population makes the hourglass increasingly bottom-heavy.

Jobs are driving this trend more than anything else. New office parks and strip malls along main highways have spawned lots of new jobs far from city centres; if new immigrants are to get to them, in metro regions without much public transport, they must either drive without permits (as many do), or live close by, though cheap housing can be scarce. New immigrants also like to be close to family and to church, temple or mosque. And, in common with plenty of native-born Americans, they want good schools for their children, which often means suburban ones.

The population shift brings new opportunities and challenges to suburbs. New businesses are popping up, homes are being improved, and children of different colours play together. But social problems that once belonged to cities, such as drug use and crime, have also spread. Last month, federal agents teamed up with local police in Chicago's suburbs to crack down on street gangs. Of 30 known gang members arrested during the sweep, all but one were Mexican.

Social and health services are stretched, too. In some communities, hospital emergency rooms are coping with pregnant women who, because they are illegal, wait until the last moment to seek medical care. Poverty is growing, too, partly driven by immigrants. A 2000 study by Brookings and the University of Michigan revealed that while urban poverty had decreased in Chicago, suburban poverty was on the rise. Sid Mohn of the Heartland Alliance, a big social-services organisation, worries about the possible creation of a “long-term Latino underclass”.

Schools face some of the biggest challenges. A report last year by Michael Fix and Jeffrey Passel of the Urban Institute showed that one in five children in America is the son or daughter of an immigrant. By 2015, they estimated, the figure will be nearly one-third. Although English skills tend to improve with each generation a family is in America, language problems persist for some: almost 20% of children with “limited English proficiency” are third-generation. And most such children live in the suburbs. From last month, schools with large new-immigrant populations are exempt from some of the testing requirements of the No Child Left Behind Act. That will give them some relief. But other problems persist, such as the high dropout rate among Latina girls.



Suburban reactions to new immigrants vary markedly. Many welcome them as hard-working people with the same aspirations as most Americans. In other places, though, there has been backlash and discrimination. One suburb impounded the cars of people found without valid drivers' licences: most were Latino.

In truth, immigration should not be a problem. Immigrants today are a smaller slice of the population than they were in 1900 (see chart on previous page). What has changed is their dispersal, well beyond the old gateway cities. “What has traditionally been a six-state issue is turning into a 50-state issue,” says Mr Fix.

As a result, there are growing calls for a national policy to help immigrants fit in. At state level, Illinois has developed a special programme that includes English and civics classes, education about benefits, and support for bilingual staff at suburban health clinics. The governor's new budget seeks additional funds for these services; but with budgets tight, public officials are under pressure to cut, not add. Today's new arrivals in the suburbs, like their forerunners in the cities, will largely have to get used to America by themselves.

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Alaska's budget

Plucking the golden goose

Mar 11th 2004 | SEATTLE
From The Economist print edition

Can the Permanent Fund be used to wipe out the deficit?

"WE HAVE", notes Clark Gruening, an Anchorage lawyer, "a problem most states would die for." No kidding. Like many states, Alaska has a budget deficit: $475m, around a fifth of annual state spending. But unlike other states fighting red ink, Alaska has an unbelievable asset: a pile of cash worth $28 billion. Taxes on oil from Prudhoe Bay in northern Alaska created that stash, which began to build up in 1977. So on the one hand, Alaska is bust. On the other, it is the richest state in the country.

The hoard, called the Permanent Fund, has mostly been left alone (Mr Gruening was a member of the board that helps to oversee it). With one exception: since 1982, every Alaskan has received an annual cheque, ranging from a low of $333 in 1984 to a high of $1,963 in 2000. The amount depends on how well the fund's investments perform. "The dividend", as Alaskans call it, has become an annual ritual much anticipated by car dealers in Anchorage, cash-strapped trappers in remote Eagle, and snow-weary Juneau residents dreaming of holidays in Mexico.

Now, though, there is talk of using the Permanent Fund to erase state debt and help finance future expenditures. One of this proposal's chief advocates is Frank Murkowski, a Republican who became governor in 2002 after a long tenure in the Senate. Mr Murkowski ran on a platform that eschewed using the Permanent Fund to solve Alaska's budget woes, which began when oil prices and Prudhoe Bay output both began to dip ten years ago. Instead, he argued, projects such as a proposed natural-gas pipeline, and drilling in the Arctic National Wildlife Refuge (ANWR) would generate new cash for the indebted state.

Neither has come to pass. The proposed gas pipeline remains a possibility but, even if it is built, it will not create revenue until 2010 or later. Oil-drilling in the ANWR—the subject of perennial war between greens and oil-industry supporters, such as the Bush administration—seems unlikely. Meanwhile, schools, towns and services to the poor and elderly are seeing their share of state dollars slashed as politicians try to close the budget gap.

So in January Mr Murkowski reversed himself and suggested using part of the Permanent Fund to pay state bills. For political cover he convened a "Conference of Alaskans" in mid-February, during which a 55-member panel spent three days hashing out a solution to the budget crunch. The panel veered a little from Mr Murkowski's wishes for it by toying with the idea of a state income tax (Alaskans pay no such tax at present). But in the end its members endorsed using the Permanent Fund to support the state's budget. The panel also recommended modifying how the fund calculates disbursements. Now, whatever the fund earns in interest and investments can go toward dividends. In the future, that amount may be based on a percentage of the fund's total worth.

Still, the panel was only advisory. Mr Murkowski now must leap two hurdles. First, he must convince the state legislature to write a proposal for tapping the Permanent Fund. Then he has to sell that plan to state voters who will make the final decision in November. That won't be easy. "People love the dividend cheque way too much," says Eric Wohlforth, a banker and lawyer who sat on the February panel. "That has paralysed debate on the state budget to the point where some people think that issuing the dividend cheque is the most important thing state government does." Mr Murkowski hopes the legislature will take up the budget on March 15th, and decide by early April whether or not to put a measure to voters.

The irony, of course, is that Alaskans see themselves as rugged pioneers standing up to a harsh environment. That may be, but government largesse does a lot more to support the state than its residents' fortitude. As well as paying no state income tax, Alaskans enjoy a gusher of federal money: about $8 billion a year, twice what they pay out in federal taxes. Only New Mexico and North Dakota do

better. A third of all Alaskans work in government jobs, an astonishingly high percentage (though one that has little impact on their love of anti-government talk-radio). Many of Mr Murkowski's own proposals for boosting the state economy, such as a plan to increase logging in the Tongass National Forest, require the federal Forest Service to spend millions building new roads.

“North to the future,” rings the Alaskan state motto. North to easy money may be more appropriate.

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The Illinois Senate race

Money and brains

Mar 11th 2004 | CHICAGO
From The Economist print edition

Would Obama do better as O'Bama?

“YOU'RE all 70 years younger than I am!” exclaims Studs Terkel, a 91-year-old writer and Chicago legend, looking wistfully at the crowd gathered round him at Sedgwick's, a yuppie bar on the city's north side. He is introducing Barack Obama, a Democrat running for the Senate. Personal fortunes are being lavishly spent ahead of the Illinois primary on March 16th, but the Obama fundraiser is a low-budget affair, with attendees paying $50 each to rub shoulders with Mr Terkel, eat pizza, and hear Mr Obama say that “ordinary people can do extraordinary things when they're given an opportunity.”

Mr Obama hopes to prove that money is not everything. Among the eight Illinois Democrats and seven Republicans campaigning to replace Peter Fitzgerald, the one-term Republican senator who is retiring, at least six have net worths of $1m or more. Mr Obama, a state legislator and law-school lecturer, is not one of them. Yet a statewide poll of likely voters released on March 8th shows that Mr Obama—whose district includes some of the richest and poorest areas in Chicago—is moving into the Democrats' top spot.

The Illinois Senate race is getting a lot of national attention because it represents “a huge pick-up opportunity” for the Democrats in the Republican-controlled Senate, says David Wilhelm, a former head of the Democratic National Committee who is running John Kerry's presidential campaign in the state. Most punters put their money on Jack Ryan, an investment banker-turned-teacher, to snatch the Republican nomination: he is rich, telegenic, and wins applause for having left a job at Goldman Sachs to teach at an all-black high school on Chicago's south side. The Democratic race is harder to guess.

Three men appear to have a good shot at the nomination: Mr Obama, Blair Hull, a former securities trader, and Dan Hynes, the state comptroller. They are separated more by their money, connections and experience than by their positions on issues, which are really much of a muchness.

Mr Hull, a first-time candidate who made his fortune, estimated at over $400m, playing blackjack and trading securities, has spent extravagantly on advertising, the only Democrat to mount a full-blown campaign across the state. He was the party front-runner in opinion polls a month ago, but his support has slipped in recent weeks after the disclosure of messy details about his divorce.

This being Chicago, there is also a “machine” candidate: Mr Hynes, who comes from a politically influential family. His father is a former president of the state Senate who still represents one of Chicago's wards. His bid has tacit support from Mayor Richard Daley, a political powerbroker. Given all the faithful foot-soldiers who are bound to turn out for him, Mr Hynes would benefit from a generally low turnout—which could happen, now that the presidential primary is essentially decided.

Then there is Mr Obama, whose brains and accomplishments have earned him endorsements from Chicago's two leading daily papers. His record is impressive: he was the first African-American (his father is black, his mother white) to head the *Harvard Law Review*, he was a civil-rights lawyer and has been an active state senator. But he faces a number of difficulties.

For a start, the liberal vote could be split between several candidates. Worse, he has had too little money to run many advertisements downstate, though there is a chance that his ties to the late Paul Simon, a long-serving liberal senator from that region, could help. He has worked hard to reach across racial lines, but his core support comes from blacks and white urban progressives, and he has pinned his primary hopes largely on the Chicago area.

Then there is his unusual name: “I've been called Alabama and Yo, mama,” he jokes. He grew up in

Indonesia and Hawaii, and admits that he is “pretty exotic for a political candidate”. Are Illinois voters ready for this? In a city with deep Irish roots, a local commentator suggests that he might do better as O'Bama.

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Secessionary hopes

Snowballing to freedom

Mar 11th 2004 | KILLINGTON, VERMONT
From The Economist print edition

A ski resort's revolution against taxation

INVOKING memories of the revolutionary war, Killington, Vermont, has decided to secede. Not from the United States, but from Vermont. In an arcane fight against taxation without sufficient representation, the ski resort wants to become part of New Hampshire.

Killington's 1,100 residents fired their first shots in 1997 after a law was passed ruling that public-school financing would be through a statewide tax pool rather than local property-tax collection. The town, which gives the state $20m a year in taxes but receives only one-tenth of that back, challenged the new law, and a judge ruled in its favour. But the state's Supreme Court overturned the ruling last year. And the winds of secession began to blow.

New Hampshire, with its motto “Live Free or Die” and lack of personal income tax, is accustomed to envy. The state appeals to libertarians and to such groups as the Free State Project, whose 5,000 members (only 33 of them from Vermont) would like to move to the Granite State. Killington's proposal has “general support in the same way that a star player on an opposing team might receive if he or she defected to your side,” says David Scanlan, New Hampshire's deputy secretary of state.

Will maps be redrawn? It is unlikely to happen soon. First, the town will petition New Hampshire's legislature. And then, in order to change a state's borders, both state legislatures and Congress must approve the plan.

Making it even harder, Killington is 35 miles (56km) to the west of New Hampshire's western border. If it joined the state, it would become an island, making public services, such as policing, road maintenance and education pretty difficult (though the town hopes to continue to send its middle- and high-school students to a school in, ahem, Vermont). To top the problems, the mountain whose ski slopes provide the town's main revenue is owned by Vermont.

Nonetheless, history is on Killington's side. Originally, in 1761, the town was part of the New Hampshire Grants round the Green Mountains, becoming part of Vermont only in 1777. And in 1977, when the people of Martha's Vineyard, a swanky Massachusetts enclave, rebelled against redistricting and floated the idea of secession, a few states, including rather distant Vermont, offered to take them in.

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Lexington

The mystery of Michael Bloomberg

Mar 11th 2004
From The Economist print edition

Why isn't New York's mayor more popular?

Get article background

STOP the presses: New Yorkers are upset. Taxes are too high, housing prices are way too high, film and television crews are blocking the streets, another mini-scandal has erupted at the Board of Education and, dammit, there's nowhere to smoke. It's outrageous, and the poll numbers show it. Halfway through his term, Mayor Michael Bloomberg's approval-ratings trail those of the man he beat for the job two years ago.

A fine mess Mr Bloomberg has made of a great city, one could conclude. Yet when he assumed his current job, only an optimist could have imagined these, and not more serious issues, as the main topics of complaint. Only a few blocks from his inauguration ceremony in lower Manhattan, the World Trade Centre still smouldered. A multi-billion-dollar budget deficit awaited, along with angry labour unions. The city's most important industries—finance and advertising—had collapsed. Companies and residents were serious about fleeing.

Yet from this horror the city, a traditional poster-child for mismanagement, has not only recovered but, in many ways, is in better shape than it was on September 10th 2001. Indeed, it is considering tax cuts. Despite smaller police numbers, crime continues to decline, the streets are relatively clean, and snow gets cleared up. The response to last summer's electricity blackout was so effective that the event has been all but forgotten.

The city's improved fiscal health of course stems in large part from Wall Street's rebound. But that rebound could easily have occurred on the other side of the Hudson, to which many firms fled for a time. Because the city continued to function well, most businesses did not leave, property values have risen, and tourism has returned. True, the schools are still a mess, but Mr Bloomberg has achieved what his predecessor could not, operational control, and a deliberate effort has begun to end decades of terrible labour contracts and absurd policies, such as the automatic promotion of unqualified students to higher grades at the end of every year. Last week, after the mayor received a report that a senior school official had hired her husband, the official left. End of story.

All of this has been done while reducing the emotional heat that swirled around the administration of Mr Bloomberg's predecessor, Rudy Giuliani. The angry protests outside City Hall have gone. In the current,

friendlier, versions, picketers put down their placards to pose for pictures with the mayor when, as is his wont, he stops to chat. A new phone number, 311, set up last March, also lets New Yorkers get directly in touch with the city government without leaving home. More than 6m calls have come in so far covering all the usual demands of a city: rubbish pick-up, heating complaints, potholes. It is a way to find answers, but also a way for the city to track problems.

Mr Bloomberg has made a point of operating as a non-political mayor. He quickly raised taxes and took a whack at costs, even daring to close redundant fire stations. Management of the city, unbelievably, has begun to change. In the office to promote film production, for example, a grimy floor filled with tiny cubicles using clunky typewriters has been transformed into an open room with computers that, miraculously, process a growing number of shoots. As a result, scenes purporting to take place in New York are actually taking place in New York, rather than on a backlot in Los Angeles.

What Mr Bloomberg has not done is equally important. He has not extended the usual city practice of granting tax breaks to companies threatening to leave, and has not allowed the unions to trade “give-backs”, or small up-front concessions on wage-bargaining, for massive benefits to come.

But people don't like him. His poll numbers are rotten, and potential opponents are queuing up. Raising taxes and cutting costs are never vote-winners. Teachers' unions loathe him, and parents are indignant when their dullard offspring are made to take a year's lessons again. Mr Bloomberg's crackdown on smoking looks like the worst sort of nannying, though New Yorkers largely accept that tobacco is bad for them.

The non-showman

Perhaps a larger reason for the mayor's unpopularity is how he does his job. Unlike previous mayors, he encourages lieutenants to speak publicly and to take credit for what they do. This makes him seem smaller, though over time it may also spare him the over-exposure that damaged his predecessors. He also lacks flair and doesn't pick fights, even with the often lunatic city council. Mr Giuliani, who did both with passion, was a much more interesting figure to follow.

He was also a blatant glory-seeker, in a way the greyer Mr Bloomberg did not appear to be. Early on, two costly pet projects to rebuild baseball stadiums were killed. Now, however, he has suggested something even more ambitious. Under cover of a bid for the 2012 Olympics, he wants to transform the city's most visible failure, vast swathes of waterfront land that once held factories, into parks and offices. Two new stadiums would rise up, in large part privately financed and tied to projects including offices, homes and parks. On March 10th plans were unveiled for the Olympic Village, across the East River from the United Nations.

The plans may go nowhere. They are massively complex; they may not work, as the Dome project failed to revitalise London east of Greenwich; and they will cost a mountain of money. Mr Bloomberg's insistence to Lexington that all new costs will be met, indeed exceeded, by new tax revenues may be wishful thinking. But at least a debate has emerged over what New York should become: a remarkable change from when Mr Bloomberg arrived, when the prevailing question was whether it could ever be again what it had been before.

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Venezuela

Regime change or bust

Mar 11th 2004 | CARACAS
From The Economist print edition

How does Venezuela's increasingly authoritarian president get away with it?

Get article background

EVEN before the election of Hugo Chávez, Venezuela was in trouble. But in the five years since he became president, Mr Chávez has steered his country into the abyss. The economy is disintegrating; the opposition is trying to oust him through a California-style recall referendum; other leaders revile him. Yet Mr Chávez still looks safe in his job. Why?

In part, because of some old-fashioned Latin American strong-arming. The opposition groups allege that around a dozen people have been killed in the last two weeks, during street protests at the scuppering of their referendum campaign. Venezuela's electoral commission, the CNE, controversially disqualified over 1m signatures on the recall petition; its organisers will imminently decide whether to try to get some of those names reinstated—thus meeting the threshold required to trigger a referendum—or give up altogether. The chances of a referendum actually being held look slim.

Another part of the answer is Mr Chávez's judicious use of electoral bribes. During 2002 and 2003 alone, abetted by strikes and lockouts, his government presided over a drop of at least 18% in GDP. Venezuelans are now living on income levels lower than any since the 1950s. Yet by diverting resources into programmes that benefit his own constituency among the poor, Mr Chávez has retained popularity ratings of between 30% and 40%.

He can afford the bribes because he has oil. After an abortive opposition attempt to force him from office by paralysing the oil industry, Mr Chávez introduced price and exchange controls, which have proved formidable tools for keeping the rebellious private sector in check. In 2003, the average price of a barrel of Venezuelan oil ($25.65) was around 17% higher than the year before. In 2004, it has remained above $27. In theory, the windfall profits that the high prices bring to the state oil corporation, PDVSA, should go into a fund to compensate for the vicissitudes of the oil-price cycle. But Mr Chávez has raided the fund, and now argues that such revenues should pay for economic subsidies.

He has other sources of income, too. His bid to persuade the central bank, the BCV, to hand over $1 billion of its reserves—which Mr Chávez wanted to distribute in the form of agricultural loans—failed. No matter; now PDVSA is to shunt part of its income into government agriculture, housing and “social” programmes, a transfer that may well violate Venezuela's constitution. Moreover, stringent restrictions on foreign exchange have boosted the BCV's international reserves from around $13 billion in January of 2003 to over $22 billion now. In conjunction with that growth, a devaluation of the official dollar

exchange rate, from 1,600 to 1,920 bolívares, has created notional bolívar “earnings” that Mr Chávez's government has grabbed.

As well as the loans and subsidies, the cash has been channelled into social programmes of doubtful durability. These should boost the vote for the president in the unlikely event of a recall referendum, and for his candidates in the mayoral and gubernatorial elections due in August. Parliamentary elections are due next year. Despite its experience with the thwarted recall campaign, the opposition is unlikely to boycott them altogether, thus lending the votes a semblance of credibility.

Oiling the revolution

These shenanigans, of course, have a price, and not just in protesters' lives. On the black market, the bolívar is plummeting. Partly as a result, inflation is the highest in the region: over 27% last year. Internal debt, which most Venezuelan banks have little choice but to keep refinancing, has spiralled. So Mr Chávez's economic populism is unsustainable; but if he manages to crush the opposition, he won't have to sustain it. Then, Venezuela's economy may come to look like look Cuba's. “It doesn't matter if we go hungry or barefoot,” Mr Chávez once said, “so long as we preserve the revolution.”

What can the rest of Latin America do about him? If (and probably when) the opposition pulls out of the rigged referendum process, or is finally defeated by the CNE's machinations, the verdict of international observers will doubtless be harsh. The Organisation of American States (OAS) may debate the imposition of sanctions. The United States would like Brazil to take the lead in punishing Mr Chávez; and Luiz Inácio Lula da Silva, Brazil's president, is himself increasingly disenchanted with his one-time ally. But even if Lula obliges, the OAS is unlikely to agree on anything much.

Quite apart from the welfare of Venezuelans, George Bush's administration has plenty of reasons for wanting to see the back of Mr Chávez. He is implacably opposed to the Free-Trade Area of the Americas, and to Plan Colombia, the campaign to defeat guerrillas and drug-trafficking in Venezuela's neighbour—two of America's most cherished regional initiatives. And he has created serious instability in a country that accounts for around 13% of American oil imports. This week, he threatened to cut the oil supply to America altogether, should Mr Bush try to dislodge him.

Given his country's dependence on the dollars that the exports to America bring in, the threat was a little outlandish (and Mr Chávez later toned it down). But, equally, Mr Bush cannot himself afford to ignore the danger of a fuel price hike, especially in an American election year. With his hands on the oil pump, and the recall campaign almost snuffed out, Mr Chávez looks set to hang on indefinitely.

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Haiti

Après moi, quoi?

Mar 11th 2004 | PORT-AU-PRINCE
From The Economist print edition

Haiti's uphill path to normality

Reuters

Hands up, guns down

Get article background

THERE was good news of sorts for Haiti this week. On March 8th, Boniface Alexandre, a former chief justice, was officially inaugurated as ex-president Jean-Bertrand Aristide's replacement. Next day, the seven members of the so-called “Council of Sages” picked a new prime minister, Gérard Latortue, who returned from Miami to accept his post, optimistically promising to “bring together all Haitians...in this bicentennial year.” In that reconciliatory spirit, Mr Latortue wants Herard Abraham, a former general and erstwhile rival for his post, to be minister of security and defence. Although he served the Duvalier regime, there is (unusually) no evidence that Mr Abraham was involved in its egregious human-rights abuses.

And aside from the occasional dead body lying on the pavement, there was a re-appearance of what passes for normal life in parts of Haiti's capital, whose streets were choked with a familiar throng of hawkers, traders and clapped-out cars. Whether that trend continues depends on whether the new government can exercise any real authority: nobody cares too much, at this stage, about its democratic legitimacy. In particular, what will be the attitude of Mr Aristide and his die-hard supporters, mainly concentrated in the shanty-towns around Port-au-Prince?

There was always a touch of “après moi, le déluge” in the speeches Mr Aristide made before he was hustled out of the country. Last week, some of his followers seemed determined to vindicate him. From his exile, he has been calling for non-violent resistance against what he sees as his forced removal, and there are reports that he continues to marshal his men by telephone. Alas, plenty of them seem uninterested in non-violence. On March 7th, at least seven people were killed and 30 wounded when suspected pro-Aristide gunmen opened fire on demonstrators celebrating his departure. Some of Mr Aristide's more senior loyalists fled the country soon after him, including about 60 who reportedly left on helicopters provided by the Dominican Republic, at a charge of $10,000 a head. But that still leaves his dreaded *chimères* gunmen.

In the almost total absence of police or international troops on the streets in some neighbourhoods, they ran amok. In the working-class Martissant district, one group of about 30 vowed to reporters last week to continue acts of “sabotage” against businessmen and anti-Aristide demonstrators. “Bush had no right to kidnap Aristide,” said Antoine Dieubon, a mid-level leader. “We are ready to destroy anyone who comes

after us.”

Whether that bravado translates into anything more substantial will help to determine whether Haiti progresses further up the steep path to normality. Some of the rebels are heavily armed. On the other hand, the do-or-die militants are thought to number no more than about 250, and the group's principal leaders have vanished. Others expressed little interest in fighting against the American marines who are now patrolling the capital.

That looks a wise choice. By midweek, the marines had shot dead four people, two of whom had ambushed them. And on March 10th, having for several days refrained from confrontation with the *chimères*—sticking to a limited mandate that does not encompass intervention in civil conflict—the marines and other international forces finally decided to impose a disarmament process.

The decision forcibly to disarm militias reflected an acknowledgement that if the armed lawlessness was allowed to continue much longer, future efforts to rebuild Haiti would be futile. On March 8th, for example, the main warehouses near the airport were looted. Kesner Pharel, an economics consultant, argues that if the situation deteriorates further, Haiti could lose 5,000 of its precious assembly-for-export jobs in the next few weeks.

The marines will begin by stopping people in the streets if they are seen to be carrying a weapon, and will look for arms caches. But the victorious rebels will have to start disarming too—and that could be a far trickier process. They are concentrated outside the capital, where there are few troops and no rule of law.

If security improves, what help can the country expect? American congressmen have proposed a tripling of financial aid to Haiti this year. There will probably be a donors' conference in three weeks' time, at which international agencies should lift the aid quarantine imposed under Mr Aristide. The appointment of Mr Latortue, a former foreign minister and UN official, may encourage donor confidence. Nation-building, however, is for the future. The next few days will determine how much of a nation there will be left to rebuild.

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Chile's foreign policy

You're my best friends

Mar 11th 2004 | SANTIAGO
From The Economist print edition

Its close ties to America may hinder Chile's relations with its neighbours

Get article background

SINCE President Ricardo Lagos took office in 2000, Chile has achieved two of its dearest foreign-policy goals: free trade agreements (FTAs) with the EU and the United States. Now his government's attention is turning towards its neighbours.

In the two decades since Chile adopted a policy of open trade, its economic growth has been driven by exports. In terms of goods alone, these now account for around a third of the country's GDP. But Chile needs its neighbours to be doing well, too. “Chile's integration will be incomplete if it doesn't include other Latin American countries,” says Carlos Portales, the Foreign Ministry's director of foreign policy. Regional stability and harmonious local relations are crucial if Chile is to increase its exports of services.

Unfortunately, Chile's past successes—and especially the achievement of the first FTA between Washington and a South American country—have done little to endear it to its neighbours. Many of them distrust free trade, and blame globalisation for their economic misfortunes. The Chilean government now has little hope that talks on a proposed Free-Trade Area of the Americas will bear much fruit.

Still, the government denies that Chile is isolated within Latin America. True, its ambition to make a more formal political alliance out of Mercosur—a trade block comprising Argentina, Brazil, Paraguay and Uruguay, of which Chile is an associate member—was frustrated, mainly because Brazil objected. But Chile is, for example, advising Peru and Ecuador on how to negotiate their own FTAs with America.

According to Mr Lagos, the speed at which Latin American countries are advancing towards international integration may vary, but they are moving in the same direction. Chile, he says, shares the region's concern with the injustices of the international economic system. But “globalisation is here to stay, so we need to work to iron out those injustices”. That means, for example, looking to the Doha round of trade talks to deal with issues such as dumping and agricultural subsidies. One of Chile's main foreign-policy priorities, he avers, is to help Latin America achieve a stronger voice in such negotiations.

The government also sees the current involvement of Chile and Brazil in the United Nations Security Council, as non-permanent members, as an important opportunity to strengthen the region's international profile. To that end, Chile has offered to send advisors to Iraq, to share the experience of setting up fresh electoral registers that the country acquired after the Pinochet dictatorship. Last week, Chile also joined America, France and Canada in sending troops to Haiti, as part of the UN peacekeeping force.

According to the government, as well as reflecting Chile's commitment to multilateralism that decision will allow it to represent Latin American and Caribbean interests in the island's reconstruction. The risk, of course, is that Chile' neighbours will see the deployment as yet more evidence of its being too cosy with America.

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Argentina

Reign of terror

Mar 11th 2004 | SANTIAGO DEL ESTERO
From The Economist print edition

A grisly murder, and a challenge to a provincial fief

EVERY Friday evening for the past year, a swelling group of protesters has marched the five miles from the town of La Banda to Santiago del Estero, the sleepy capital of one of Argentina's most backward provinces. Their immediate grievance was the murder of two women, and the apparent involvement in the killings—and subsequent cover-up—of politicians, businessmen and judges. But their crusade is symptomatic of a yearning for political renewal in parts of Argentina's poorer interior, where local strongmen have traditionally ruled supreme.

According to the judge now in charge of the case, Leyla Bshier was killed at an orgiastic party attended by some of the local elite. Her body was then cut up, and parts of it fed to animals at a private zoo belonging to Musa Azar, the province's former (and still much-feared) security chief. Poor Patricia Villalba heard about the crime, and was killed to stop her talking.

Inspired by the protests, the judge summoned up the courage to order the arrest of Mr Azar, his wife and son, plus a provincial legislator, several police officers and the judge who originally oversaw the case. And Néstor Kirchner, Argentina's president, has sent his human-rights secretary, Eduardo Luis Duhalde, to Santiago. He has joined the marches, and has filed charges against Mr Azar for the murder of 28 people who “disappeared” during Argentina's military dictatorship of 1976-83. Anger over the murders even threatens to topple Nina Juárez, the provincial governor, and her husband Carlos, who have ruled the place on and off since 1949.

Even after democracy returned to Argentina, some things remained the same in Santiago. A police raid last week revealed what many had long suspected: that Mr Azar's security forces had illegally amassed files on thousands of his opponents. According to the Catholic church's human-rights office in the town, the police have killed 26 people in the past five years. “The deaths of Leyla and Patricia would have been prevented if the crimes against humanity during the dictatorship had been judged and punished,” argues Cristina Torres, a justice-ministry official, who says she was herself tortured by Mr Azar during the military regime.

Poverty is as endemic as are corruption and police brutality. Two out of three people in Santiago are poor. Local and national government employs 86% of the workforce; job insecurity has helped to keep dissent in check. Even now, human-rights workers report multiple complaints from people who have been sacked because they or one of their relatives were spotted on the murder marches. Protesters have received death threats and been followed and bugged.

The likes of the Juárezes have been entrenched for decades in much of northern Argentina. But Mr Duhalde's arrival seems to have marked a watershed. Mr Juárez himself is now under scrutiny for disappearances during the dictatorship. His wife is charged with defrauding the state pension system and organising an attack on a rival politician. Investigations have re-opened into the suspicious deaths of two of their opponents. Federal officials muse about taking over the administration of the province, or at least its justice system.

The Juárez family has friends in Congress, in the ruling Peronist party and in the docile provincial

legislature. Ms Juárez has made her husband a provincial minister, thus (she hopes) giving him immunity. And this is not the first time Mr Juárez has been in trouble: in 1993, the government intervened in Santiago after his mansion was destroyed in a riot. Two years later, he was elected again, and turned to Mr Azar to help him take his revenge. Perhaps this time he will go for good.

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North Korea

Through a glass, darkly

Mar 11th 2004 | PYONGYANG AND PUKCHANG
From The Economist print edition

So far as a visitor can tell in this secretive land, North Korea's economic reforms are starting to bite. But real progress will require better relations with the outside

Get article background

COMMUNIST North Korea has started to experiment with economic reform, and opened its door a crack to the outside world. Though its culture of secrecy and suspicion stubbornly persists, it was deemed acceptable for your correspondent to visit Pyongyang's Tongil market last week. Here, stalls are bursting with plump vegetables and groaning with stacks of fresh meat. You can even buy imported pineapples and bananas from enthusiastic private traders.

But how about a photograph? Most foreigners think of North Korea as a famished nation, and the authorities are evidently keen these days to tell the world about the great strides their economy has made since reforms were introduced in July 2002. Logic might seem to suggest that a snap showing the palpable result of the reforms would be acceptable too. But it is not. The officials were friendly but firm: no pictures of fat carrots.

The July 2002 reforms were ground-breaking for North Korea: the first real step away from central planning since the dawn of communism there in 1945. The government announced that subsidies to state-owned enterprises were to be withdrawn, workers would be paid according to how much they produced, farmers' markets, hitherto tolerated, would become legal and state enterprises would be allowed to sell manufactured products in markets. Most of these enterprises, unless they produced “strategic items”, were to get real autonomy from state control.

Almost two years on, how to assess the success or failure of these reforms? That climate of secrecy makes it deeply frustrating. Even the simplest of statistics is unavailable. Li Gi Song, a senior economist at Pyongyang's Academy of Sciences, says he does not know the rate of inflation. Or maybe he is not telling. After all, he says, “We can't publish all the figures because we don't want to appear bare before the United States. If we are bare then they will attack us, like Afghanistan or Iraq.” So what follows can be little more than a series of impressions.

The indications are that the reforms are having a big impact. For a start, North Korea has recently acquired its first advertisement (pictured above)—for foreign cars, assembled locally by a South Korean majority-owned company. Or, to be more basic, take the price of rice, North Korea's staple. Before the

reforms, the state bought rice from state farms and co-operatives at 82 chon per kilo (100 chon make one won, worth less than a cent at the official exchange rate). It then resold it to the public through the country's rationing system at eight chon. Now, explains Mr Li, the state buys at 42 won and resells at 46 won.

North Korea's rationing system is called the Public Distribution System (PDS). Every month people are entitled to buy a certain amount of rice or other available staples at the protected price. Thus most North Koreans get 300g (9oz) of rice a day, at 46 won a kilo. According to the UN's World Food Programme (WFP), that is not nearly enough. Anything extra has to be bought in the market.

In theory, even in the market the price of staples is limited. Last week, the maximum permitted rice price was marked on a board at the entrance to Tongil as 240 won per kilo. In fact, it was selling for 250. WFP officials say that in January it was selling for 145 won, which points to significant inflation, for rice at least. This is not necessarily a bad thing, since it means that the price is coming into line with the market.

The won's international value is also adjusting. Since December 2002, the euro has been North Korea's official currency for all foreign transactions. In North Korean banks, one euro buys 171 won. In fact, this rate is purely nominal. A semi-official rate now exists and the price of imports in shops is calculated using this.

Last October, according to foreign diplomats, a euro bought 1,030 won at the semi-official rate. Last week it was 1,400. A black market also exists, in which the euro is reported to be fetching 1,600 won—which implies that the won is approaching its market level. It also means, however, that imported goods have seen a big price-hike. For domestically-produced goods, like rice, prices may well go on rising for a good while longer.

What about earnings? Before the 2002 reforms, most salaries lay in the range of 150-200 won per month. Rent and utilities, though, were virtually free, as were (and are) education and health care. Food, via the PDS, was virtually given away. Now, pay is supposed to be linked to output, though becoming more productive is not easy for desk-bound civil servants or workers in factories that have no power, raw materials or markets.

Rents and utilities have gone up, though not by crippling amounts. A two-bedroom flat in Pyongyang including electricity, water and heat costs just 150 won a month—that is, about a tenth of a euro.

Earnings have gone up much more: a waitress in a Pyongyang restaurant earns about 2,200 won a month. A mid-ranking government official earns 2,700. A worker at a state farm earns in the region of 1,700, a kindergarten teacher the same, and a pensioner gets between 700 and 1,500. A seamstress in a successful factory with export contracts can earn as much as 5,000 won a month. Since that seamstress's pay equates to barely three euros a month, wages still have a long way to adjust.

The prices of food and other necessities, to say nothing of luxuries, has gone up much more than rent has. According to the WFP, some 70% of the households it has interviewed are dependent on their 300 gram PDS ration, and the WFP itself is targeting 6.5m vulnerable people out of a total population of some 23m. Not all suffer equally: civil servants in Pyongyang get double food rations from the PDS.

There are some encouraging stories. In Pukchang, a small industrial town 70km (40 miles) north-east of Pyongyang, Concern, an Irish aid group, has been replacing ancient, leaking and broken-down water pipes and pumps, and modernising the purification system. This has pushed the amount of clean water available per person per day from 80 to 300 litres. Kim Chae Sun is a manager at the filtration plant, which is now more efficient. Before July 2002 she earned 80 won a month. Afterwards she earned 3,000 won. Now she earns 3,500.

As Mrs Kim speaks, three giant chimneys belch smoke from the power station that dominates the town.

All workers have been told they can earn more if they work harder, but certain groups have been told they will get even more money than everyone else. In energy-starved North Korea these include miners and power workers. Mrs Kim says her husband, who works in the power plant, earns an average of 12,000 won a month. Her rent has gone up from eight to 102 won a month, and in a year, she thinks, she will be able to buy a television or a fridge.

A lot of people, in fact, are buying televisions. The women who sell the sets from crowded Tongil market-stalls get them from trading companies which they pay after making a sale. The company price for an average set is 72,000 won, the profit just 1,000 won. After they have paid for their pitch, the traders can expect an income of 10,000-12,000 won a month.

Mystery sales

Which makes for a puzzle. Who can afford a good month's salary for a locally made jacket in Tongil, costing 4,500 won? How come so many people are buying televisions, which cost more than two years of a civil-servant's pay? How come the number of cars on the streets of the capital has shot up in the past year? Pyongyang still has vastly less traffic than any other capital city on earth, but there are far more cars around than a year ago. Restaurants, of which there are many, serve good food—but a meal costs the equivalent of at least a white-collar worker's monthly salary. Many of these restaurants are packed.

Foreign money is part of it. Diplomats and aid workers say many new enterprises seem to have opened over the last year. Nominally they are state-owned, but sometimes they have a foreign partner, often an ethnic Korean from Japan. The majority are in the import-export business. Some have invested in restaurants and hotels and some in light industry. Thanks to the 2002 reforms, these firms have a degree of autonomy they could not have dreamed of before. An unknown number of people also receive money from family abroad, but there are still no North Korean-owned private companies.

Oh for a tractor

Farmers are among the other winners: they can sell any surpluses on the open market. But two out of three North Koreans live in towns and cities, and only 18% of the country is suitable for agriculture. The losers include civil servants, especially those outside Pyongyang who do not get double food rations and have no way to increase their productivity.

Factory workers have it the hardest. A large proportion of industry is obsolete. Though Pyongyang has electricity most of the day, much of the rest of the country does not. Despite wild talk of a high-tech revolution, the country is not connected to the internet, though some high-ups do have access to e-mail service. In the east of the country lies a vast rustbelt of collapsing manufacturing plants.

Huge but unknown numbers of workers have been moved into farming, even though every scrap of available land is already being cultivated. The extra workers are needed because there is virtually no power for threshing and harvesting and no diesel for farm vehicles. This requires more work to be done by hand. Ox-carts are a common sight.

The innocent suffer

Markets are everywhere. But this does not mean that there is enough food everywhere. In Pyongyang, where there are better-off people to pay for it, there is an ever-increasing supply. Outside the capital, shortages are widespread.

No one knows how many died during the famine years of 1995-99; estimates range from 200,000 to 3m. In Pukchang, officials say that 5% of children are still weak and malnourished. In Hoichang, east of Pyongyang, schools and institutions tell the WFP that about 10% of children are malnourished. Masood Hyder, the senior UN official in North Korea, says that vulnerable households now spend up to 80% of their income on food.

And yet some things are improving. Two surveys carried out in 1998 and 2002 by the North Korean government together with the WFP and Unicef showed a dramatic improvement in children's health between those years. The proportion of children who fail to reach their proper height because of malnutrition fell from 62% to 39%, and the figures are thought to be still better now. However, Unicef says that though children may no longer die of hunger, they are still dying from diarrhoea and respiratory diseases—which are often a side-effect of malnutrition.

To a westerner's eye, a class of 11-year-olds in Hoichang is a shocking sight. At first, your correspondent thought they were seven; the worst-affected look to be only five. Ri Gwan Sun, their teacher, says that apart from being stunted some of them still suffer from the long-term effects of malnutrition. They struggle to keep up in sports and are prone to flu and pneumonia. They are also slower learners.

North Korea's 11-year-old victims

Pierrette Vu Thi of Unicef says that North Korea's poor international image makes it hard for her agency, the WFP and others to raise all the money they need. The country is in a chronic state of emergency, she says, and to get it back on its feet it would need a reconstruction effort on the scale of Afghanistan and Iraq.

Such bleak talk is echoed by Eigil Sorensen of the World Health Organisation. He says that health services are extremely limited outside the capital. Medicines and equipment are in short supply, large numbers of hospitals no longer have running water or heating and the country has no capacity to handle a major health crisis.

None of this is likely to change very fast. With no end yet to the nuclear stand-off between North Korea and the United States, American and Japanese sanctions will remain in place. And nukes are only part of it. Last week the American State Department said it was likely that North Korea produced and sold heroin and other narcotics abroad as a matter of state policy. North Koreans who have fled claim that up to 200,000 compatriots are in labour camps. North Korea denies it all.

Reform, such as it is, has plainly made life easier for many. But rescuing the North would take large amounts of foreign money, as well as measures more far-reaching than have yet been attempted. At present, there is no way for the government to get what it needs from international financial institutions like the World Bank. Such aid as comes will be strictly humanitarian, and investment in so opaque a country will never be more than tentative. Domestic reform on its own cannot fix an economy wrecked by decades of mismanagement and the collapse of communism almost everywhere else.

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South Korea

Will they impeach the president?

Mar 11th 2004 | SEOUL
From The Economist print edition

The impeachers might suffer too

Get article background

IT WAS difficult anyway to find anyone in South Korea with a good word to say about politicians. This week, with the president facing the threat of impeachment on the flimsiest of grounds and mud flying fast in all directions, their stock is plumbing new depths.

On March 9th, the two main opposition parties lodged an unprecedented motion to force Roh Moo-Hyun from office. Their complaint is that he has campaigned illegally on behalf of the Uri party, which supports him. The complaint has some force. Mr Roh has said in public that he would do everything he could to ensure votes for the Uri party at next month's legislative elections. This broke the rules that prohibit public officials from electioneering. Mr Roh, however, refused opposition demands for an apology. The comments earned a rebuke from South Korea's election watchdog. But do they amount to an impeachable offence?

Reuters

Blow after blow for Roh

It is not obvious that the impeachment bid will succeed. Its prime mover is the Millennium Democratic Party (MDP), to which Mr Roh used to belong but which is now in opposition. However, the measure needs the backing of two-thirds of all members of parliament before the constitutional court can give a ruling. Some of the party's own members are reluctant to support impeachment, for fear of provoking a backlash that would hurt their own prospects in April's elections.

Such doubters remember how the president harnessed public support last year by calling for a national referendum on his leadership. It seemed as if most voters would have given him their backing, less out of admiration than for fear that his departure would bring further political chaos. At first the opposition parties welcomed the referendum idea. They have quietly allowed it to languish.

The opposition, meanwhile, has troubles of its own. The day before the MDP launched the impeachment bid, prosecutors released the interim results of an investigation into a vast political-finance scandal. The main opposition party, the Grand National Party (GNP), stands accused of accepting over $68m in illegal contributions from big business during the 2002 presidential election. The Roh camp got just under $10m. You might think that the GNP's embarrassment would be a source of relief to Mr Roh. It would—had he not made himself a hostage to fortune with an unwise promise to resign if his team was discovered to have received more than a tenth of what the GNP dodgily took. He is now being reminded of this.

For the present, the opposition parties, riven by strife and damaged by the corruption scandal, are trailing badly. But that does not mean that Mr Roh is sitting pretty. His acrimonious departure from the MDP last year landed him with a parliament dominated by his opponents. Now he needs the new Uri party, an MDP breakaway, to perform well in next month's elections if he is to break the opposition's grip and avoid becoming a lame duck for the next four years.

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China

Ideological gymnastics

Mar 11th 2004 | BEIJING
From The Economist print edition

Even in the People's Republic, property is no longer theft

“THE theory of the Communists may be summed up in the single sentence: abolition of private property.” Many of China's communists now privately wish that Karl Marx's words could be forgotten. On March 14th, they—or rather their proxies in China's compliant legislature—will approve a constitutional amendment that will describe private property rights as “inviolable”. But few expect the jitters caused by Marx's legacy to be calmed so easily.

China's leaders are struggling to keep their conspicuously ill-suited ideology in line with the accelerating change around them. In 2002 they adopted a new formulation that for the first time allowed private businessmen to join the Communist Party (though many were already closet members). Now they want to reassure them that the party will not, as it did in the 1950s, take away their businesses.

Officials also want to calm the fears of ordinary citizens that the assets many now own, particularly as a result of housing privatisation, may be arbitrarily seized. A survey conducted two years ago by state-run media in Beijing, Shanghai and Guangzhou found that more than 40% of respondents feared their property rights might be violated and 93% wanted stronger constitutional protection.

But the amendment has proved controversial. For some, it does not go far enough in its defence of private property. Others fear that its main impact will be to protect the wealthy and their often dubiously acquired assets. Powerful officials and those with good government connections have been among the biggest beneficiaries of China's economic reforms.

This has fuelled resentment among the less well-off, who are often the most conspicuous victims of China's ambivalence towards private property. Many urban residents have had their houses knocked down with inadequate compensation, to make way for government-backed construction projects. Tens of millions of people in rural areas have been pushed off their land to make way for development (they do not own the land itself, but they do have usage rights).

The legacy of Marx is evident in the amendment's wording. While the constitution declares state property to be “sacred and inviolable”, the word “sacred” is not being applied to private property. And only “lawful” private property will be protected—a qualifier missing from the section on state property. While no one would expect ill-gotten wealth to be protected by the constitution, the use of the word “lawful” hints at the party's continuing suspicions of the private sector.

Even if private and state property were to be accorded equal status, the constitution would provide little more than symbolic protection. China's courts almost never accept cases argued on constitutional grounds. There has been no case of a law's constitutionality being challenged successfully. Other rights supposedly guaranteed by the constitution, such as freedom of speech and religion, are routinely ignored. An amendment specifying the state's respect for human rights is also due to be added to the constitution at the end of China's annual parliamentary session, but few expect it to change much.

And, for all its professed embrace of private enterprise and ownership, the party (whose name in Chinese literally means “common property party”) still cannot bring itself to repudiate Marxism. Party scholars still tortuously argue that the protection of private property rights does not mean the abandonment of Marx's goal. As one put it in an article last year, not very reassuringly: “developing the private and other non-state sectors is aimed at the eventual elimination of the system of private ownership.”

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Japan's finances

A touch-up won't do

Mar 11th 2004 | TOKYO
From The Economist print edition

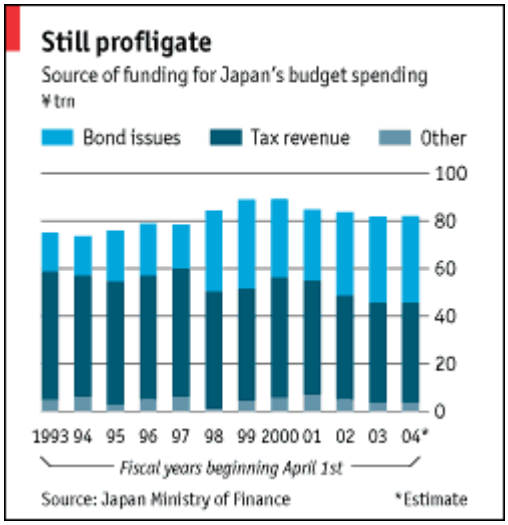
The government still needs to mend its ways

A BIT of growth has put a prettier face on many of Japan's economic problems lately. But the government's cavalier way with public money remains as unattractive as ever. On March 9th, the cabinet approved a long-debated plan to “privatise” Japan's profligate public road corporations—resulting in little more than a makeover for them. Meanwhile, the state-backed Industrial Revitalisation Corporation was trying in vain this week to justify its planned bail-out of a large cosmetics company—even though another Japanese firm has already offered to rescue it with private money. These unfortunate habits make it hard to be cheery about Japan's public finances, even though, as the budget that cleared parliament's lower house last week suggests, the current upturn may bring mildly good news.

The new budget calls for ¥82 trillion ($732 billion) of spending in the year beginning April 1st, roughly the same as this year. The encouraging part is that tax revenues, which slid in 2001-02 as the economy tumbled, will probably stabilise, and perhaps even recover a bit, if the economy keeps expanding.

The Economist's poll of forecasters predicts 2.6% growth in 2004, highly respectable after the last decade's woes. The government's own calculations show that total tax revenues should remain roughly unchanged in the coming fiscal year. That should bring a halt, at least for now, to the sharp rise in borrowing that has occurred during the first three years of Junichiro Koizumi's term as prime minister. The government now pays for 45% of all new spending with borrowed money (see chart); and total public debt is around 150% of GDP.

A long period of sustained economic growth would help, but the government will still have to take tough measures eventually. So this week's decision on road “privatisation” is especially discouraging. This was to be one of Mr Koizumi's signature reforms, along with the privatisation of the postal system. Yet after three years in office, all he has come up with is a plan to alter the way in which the government subsidises pointless new highways.



Japan's existing network of toll roads, along with its ¥40 trillion in associated debts, will be rolled into a single entity, which will use toll revenues to repay the debt over the next 45 years. The government will also move the road-building bits of the old public corporations into six new, nominally private, companies. It expects these to borrow fresh money—crucially, with the government's backing—to finance new roads that few onlookers expect to offer commercial value. It is not a pretty sight.

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Palestine

Who's in charge?

Mar 11th 2004 | EAST JERUSALEM
From The Economist print edition

Reuters

Chaos within Yasser Arafat's own organisation makes it even harder for Israelis and Palestinians to come to terms

Get article background

THE prospect of a meeting, perhaps next week, between Ahmed Qurei, the Palestinian prime minister, and his Israeli counterpart, Ariel Sharon, is concentrating minds, both within and outside the snakepit of regional and local politics. It would be the pair's first handshake since Mr Qurei took up the poisoned chalice of his job in October. The Egyptians, in particular, whose intelligence chief has been secretly chatting to Mr Sharon, want to know how the Gaza Strip, which abuts Egypt's Sinai peninsula, will be administered if, as Mr Sharon promised a month ago, Israel removes the Jewish settlements from the area. And the foreign minister of Jordan, the other Arab country most directly concerned, put his finger on one of the most vexing problems that would arise in the event of an Israeli withdrawal. “Will the Palestinian Authority be prepared for the task of managing the region?”

Many people, Palestinian and Israeli, have doubts. Hence the urgency with which Fatah, the beefiest group under the umbrella of the Palestine Liberation Organisation, is trying to rejuvenate itself. Yet, by calling a party conference to be held within a year, Fatah may worsen its own rifts. And the standing of its leader, Yasser Arafat, who also presides over the Palestinian Authority (PA), may fall still further.

A reverse Arabic acronym for “the movement for the liberation of Palestine”, Fatah, under Mr Arafat's leadership, has always been at the heart of the Palestinians' struggle for self-determination. But it long ago lost its shine. The movement's effectiveness has been crushed by the *intifada* and Israel's aggressive response; it has not held an election for 15 years; and it is deeply and painfully at odds with itself.

The rift goes back as far as the 1993 Oslo accords. Fatah has supported the peaceful two-state principle since the late 1980s, but half the 11-member Central Council opposed the terms of the agreement with Israel negotiated secretly in the Norwegian capital. However, Fatah and the PA, which was set up after the Oslo accords to run the West Bank and Gaza, soon became closely identified. Key posts in the authority have always gone to Fatah members loyal to Mr Arafat, some of them notorious for their corruption. Directly elected president of the PA in 1996, Mr Arafat sees any attempt to change this system of patronage as a threat to his leadership. So, as the PA limps on, trying to run the territories under the impossible conditions of Israel's closures and semi-occupation, so limps the top civilian echelon

of Fatah.

At the same time, many Fatah leaders followed the Palestinian “street” in believing that if they were ever to win real independence, they had to pursue a dual policy of negotiations and armed attacks. After the start of the latest *intifada* in 2000, a special Fatah unit was created for operations against Israel, known as the al-Aqsa Martyrs Brigades.

The fact that the Martyrs Brigades are not under the PA's control gives Mr Arafat freedom to condemn their operations. But his connection with Fatah's military wing is a point of contention. To begin with, the Fatah military groups eschewed suicide-bombing and aimed most of their operations at targets—Jewish settlers as well as Israeli soldiers—in the West Bank and Gaza and few in Israel proper. But with the radical Islamist outfits, Hamas and Islamic Jihad, winning Palestinian plaudits for suicide attacks inside Israel, Fatah, not to be politically outdone, followed suit.

Its actions, however, do not seem to have won it the support it sought: witness the university elections held in December. These student-council elections, traditionally a marker of the public mood, were expected to show an upturn in Fatah's fortunes. In the event, the results were a resounding blow to Fatah, with Hamas and Islamic Jihad adding to their seats on most campuses.

Fatahcidal

In the aftermath of the student elections, Fatah's internal differences over strategy, leadership and the allocation of severely limited resources came fiercely to the surface. In some places, personal disputes and power struggles became armed battles. Recently the mayor of Nablus, the West Bank's biggest town, resigned in protest at the PA's failure to sort out rows within the local Fatah branch that had caused havoc in what he called his “dying city”. Mr Arafat once mediated in such disputes. Now, confined by Israel to his decrepit quarters in Ramallah, he is no longer able to do so. The leadership's unpopularity has been accentuated by the apparent attempts of security men thought to be close to Mr Arafat to intimidate Palestinian journalists, in the West Bank and Gaza, who have written candidly about the chaos and corruption in the PA, and in Fatah.

The quarrel is often said to be between Fatah's “new” and “old” guards: insiders from the West Bank and old PLO men who came from exile. But the differences criss-cross this divide. On both sides, many Palestinians think that the al-Aqsa Brigades, or at least those cells still loyal to Fatah, should be reined in. Others say that the strategy itself must change.

These, the keenest reformers, look to the party conference heralded recently by Mr Arafat, and hope that an array of younger people will oust the old guard at the top. One snag is that under present conditions, with the Israeli army keeping tight screws on the West Bank and Gaza, it will be impossible for a fully representative conference to take place, let alone one that includes participants from Fatah's far-flung diaspora. The splits, and the festering of Mr Arafat's leadership, are intensified as Hamas continues its hideous suicide bombings, challenging Fatah to match it.

Meanwhile, if the Israelis do leave Gaza, it is unclear whether Mr Arafat's loyalists or other, much more extreme people—in Hamas, for instance—will fill the void. And that, in turn, would hardly be the best way to get the parties back on the almost-out-of-sight American- and European-backed “road map” to peace.

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Iraq's interim constitution

Breakthrough or procrastination?

Mar 11th 2004 | BAGHDAD
From The Economist print edition

Do the Shias truly accept the new constitution?

ON MARCH 8th, more than a week after the original deadline, all 25 members (or their delegated proxies) on Iraq's American-appointed Governing Council (GC) eventually signed up to a new interim constitution. But it was touch and go. An accord had been delayed because five of the council's 13 Shias had objected to the granting of a veto—as they saw it—to the Kurds, which lets them block changes to a constitution that now guarantees their autonomy in a federal state. But after the Shias yielded, 12 of them promptly issued a statement stressing their reservations and underlining the deal's interim nature. Is the document, then, a true pointer to a new Iraq or will the Shias seek to tear it up and start again once they win the lion's share of power at the polls in a year or so, as they assume they will?

Mohammed Bahr al-Uloum, a Shia ayatollah who was one of the five GC members at first refusing to sign, said the constitution upheld "the principles of consensus between all the components" of Iraqi society. It was, for sure, a striking compromise, in particular between Iraq's religious Shias, who want power concentrated at the centre, and the secular-leaning Kurds, who want the opposite. But the grumbles of the GC's Shia members left a sour taste—and a sense that crucial issues remain unresolved in the long run. "It's like eating kebab that you cooked three days ago," said a Kurd on the GC. "Then it got put in the fridge and got cold."

The Shias' reluctant quintet on the GC say they were acting at the behest of Grand Ayatollah Ali Sistani, the Shias' most influential cleric, who particularly objected to a clause stipulating that if two-thirds of the voters in three of the country's 18 provinces refuse to endorse a constitution, it cannot become valid. Since the Kurds are a big majority in three northern provinces, that would give them a right of veto. A new and permanent constitution is supposed to be approved by October 2005.

For the Kurds, as well as for many Sunni Arabs, this controversial clause is non-negotiable, since it guarantees that the Shia majority (around 60% of Iraqis) would be unable to get their way by sheer force of numbers. The Shias' five recalcitrants say they backed down only because Mr Sistani changed his mind to avoid a crisis. Some senior Shias outside the council are glum. Ayatollah Mohammed Taqi al-Mudarassi has called the regional veto a "time bomb" that could spark "civil war."

Some non-Shias suspect that Mr Sistani, despite his repeatedly claimed aversion to rule by clergy à la Iran, has a hidden theocratic agenda that he will promote once the Americans have gone. Others fear that Iran is using its influence in the reclusive Mr Sistani's inner circle to show the Americans that it can disrupt Iraq's transition if it is not to the Shias' liking. But Iraq's American proconsul, Paul Bremer, implies that he will veto any constitution making Islam the main source of law.

If the Kurds insist, as they will, on keeping a regional veto, constitutional drafts could bounce back and forth for years. But it is quite likely that the compromises reached under Mr Bremer's supervision may harden into permanence. Hence the importance of this week's signatures.

The Shias' other big compromise was to drop their demand for *sharia*—Islamic law—to be Iraq's main source of legislation. Secularists and many Sunnis feared that the Shia religious establishment would set itself up as the arbiter of what was *sharia*. In fact, the interim constitution says that no law may breach the "universally agreed tenets of Islam" but nor may it violate the "principles of democracy" or a bill of rights including such guarantees of individual freedom as a "right to privacy".

Though winning their right to self-rule in the zone set up after the Gulf war of 1991, the Kurds had to compromise too. For one thing, they dropped their demand that they should hog all the revenues from natural resources—in essence, oil—in their zone. For another, they agreed that the ethnically mixed and

oil-rich governorate of Kirkuk, which many of them say is an integral part of Kurdistan, should not join any regional block—at least for now.

The basis for a long-term constitution, then? No one is sure. But it will be hard for the Shias to tear it up, when an elected Iraqi assembly comes to elaborate a new version in a year or so, unless they are prepared to risk breaking up the country.

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Iran, Libya and nukes

Ebb tide

Mar 11th 2004
From The Economist print edition

Libya co-operates; Iran hesitates

THE bracketing was as telling as the language: Mohamed ElBaradei, head of the International Atomic Energy Agency (IAEA), condemned the recently uncovered nuclear activities of both Iran and Libya as a “violation” of the non-proliferation regime. Reports presented to the IAEA's board of governors this week talk more diplomatically of reporting “failures” and safeguards “breaches”. Any such lumping together of the two countries angers Iran: Libya has admitted to a covert nuclear-weapons programme, and thus deserves censure, it says, whereas Iran has not. Yet any other comparison between the two is less than flattering to Iran.

Since December, when Libya owned up to its bomb-tinkering, sensitive nuclear documents, including a design for a bomb bought from Pakistani nuclear scientists, have been flown to America for safe-keeping. Close-to-weapons-usable highly enriched uranium has been dispatched to Russia. And on March 6th a ship carrying more than 500 tonnes of parts for making more uranium, as well as some missiles, left Libya for an undisclosed American port. The IAEA's board voted this week to refer Libya's past nuclear moonlighting to the UN Security Council—but with a big pat on the back for coming clean.

Iran spent the week lobbying IAEA board members to block criticism of its failure to tell the agency of plans and parts for more sophisticated uranium-enriching centrifuges than it had previously owned up to, and for covering up past experiments with polonium, a material that can help trigger a nuclear bomb. Mr ElBaradei had previously spoken of a “sea change” in Iran's co-operation since last October, when it presented a supposedly complete account of its hidden nuclear activities. Now its co-operation seems to be ebbing.

The IAEA is most concerned about traces of militarily useful highly enriched uranium found in Iran: contamination from imported machinery, claims Iran, though inspectors have yet to be given permission to take samples in Pakistan, the suspected place of origin. Meanwhile, sample analysis suggests that Iran may also have bought some enriched uranium on the black market, possibly from Russia. And there is suspicion that it may even have made some even-more-highly enriched stuff itself.

Iran's nuclear programme seems more and more to resemble those of Libya and North Korea: all bought from the same Pakistan-centred supply network. The gathering suspicions may have prompted Britain, France and Germany, which have been gentle with Iran in the hope of getting it to co-operate with the IAEA, to accept a draft resolution circulated this week by Australia and Canada, and backed by America, that “deplores” the omissions in Iran's October declaration. The draft grants that some progress has been made, but most governments think Iran still has a troubling case to answer.

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The opposition in Zimbabwe

Being an MP: a very dangerous job

Mar 11th 2004
From The Economist print edition

If you don't like being tortured, don't stand for parliament

Get article background

AN ELECTION is due next year, but Zimbabwe's opposition is wondering whether it is worth taking part. Morgan Tsvangirai, leader of the Movement for Democratic Change (MDC), said this week that his party might boycott an unfair poll, which is plainly what President Robert Mugabe is planning.

Mr Mugabe was alarmed at the large number of MDC candidates who won seats at the last general election, in 2000, and has strained to make their lives uncomfortable. A new survey of MDC MPs found that 42% claimed to have been assaulted in the past four years, most commonly by the police, while 24% said they had survived assassination attempts. Three died after assaults.

Most MDC MPs said they had been arrested, but only one, Job Sikhala, was convicted of anything; he claims to have been detained 17 times on a variety of nebulous charges. On one occasion, he was stripped, bound, blindfolded, subjected to electric shocks to his teeth and testicles, and then urinated on by a laughing policeman. His torturers failed to extract evidence of any wrongdoing, but in January this year Mr Sikhala was eventually found guilty of assaulting a police officer and fined $5.

Last month, President Robert Mugabe decided that his police did not have enough powers to interrogate suspects, and decreed that they could hold people for 28 days without charge.

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An African peacekeeping force

How to put the house in order

Mar 11th 2004 | JOHANNESBURG
From The Economist print edition

Perhaps Africa can at last start to deal with Africa's wars

Get article background

Reuters

South Africans already keeping the peace

TWO years ago South Africa's President Thabo Mbeki called for an African army that might help bring the continent's civil wars under control, prevent genocide and in general make Africa a calmer place. Let a Peace and Security Council (modelled on the UN's top body) oversee it, he said. The next time a tragedy loomed, such as the 1994 genocide in Rwanda, the continent could do more than watch in horror. No longer would Africa have to call for outside help from Britain, France or America to end its awful wars.

Remarkably, what seemed just a nice idea may become reality. By the end of last year 28 countries had ratified a protocol bringing an African Security Council into existence. This month foreign ministers meeting in Ethiopia will elect its 15 members for terms of three to five years. By next year the council may have an army to command. Leaders of the African Union agreed last weekend to form five brigades of soldiers, policemen and military observers, 15,000 people in all, to be led by South Africa, Nigeria, Kenya and Egypt. There will be one brigade in each of five regions of the continent. Luckily, a barmy idea by Libya's President Muammar Qaddafi to scrap all national armies and form a single pan-African one was rejected.

This is not all. Five eminent Africans will form a “council of the wise” which is supposed to help prevent and resolve conflicts. A military committee will plan operations, just as military advisers help the UN's peacekeeping department. An “early-warning system” is supposed to tell officials when a war is looming. Malawi's President Bakili Muluzi suggests that a first test could be tackling the Lord's Resistance Army, a vicious Ugandan rebel group.

But it is likely to be years before real operations begin. Some money may be drawn from a European Union fund of €250m ($300m); Scandinavian countries could train the peacekeepers; the United States may train soldiers for tougher operations, as it has in Nigeria. But donors are wary. They want assurances that their money will flow into an efficient system.

African countries must also prove they can provide well-trained and properly equipped troops. South Africa has some 3,000 peacekeepers in Burundi and Congo-Kinshasa; Namibian soldiers are part of the UN operation in Liberia; Nigeria's army has tried to keep order in parts of west Africa. But others are less reliable. Ethiopia, Mozambique, Ghana and Senegal all promised peacekeepers for Burundi, who came either late or not at all. Zambian soldiers meant to dampen Sierra Leone's civil war arrived without boots or guns and were promptly taken hostage by a rebel army.

The new Security Council, which can order military intervention anywhere in Africa, will also have to ensure that nobody hijacks it. An existing southern African body, the Organ on Politics, Defence and Security, was taken over in 1998 by its then chairman, Robert Mugabe of Zimbabwe, which then joined Namibia and Angola in a war of plunder in Congo under the cover of “peacekeeping”, despite objections from South Africa and others.

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Spain

Terror before an election

Mar 11th 2004 | MADRID
From The Economist print edition

Reuters

A co-ordinated series of bombings sows carnage in Madrid

Get article background

COMING just three days before a general election which the ruling conservatives now seem even more likely to win, it was the worst terrorist outrage of recent times in Western Europe. In a series of co-ordinated blasts in three railway stations in Madrid, including its biggest one, Atocha, at least 170 people were reported to have perished in the morning rush-hour.

The Spanish authorities were quick to say that the perpetrators were members of ETA, the Basque separatist group, which has been using terror for more than 30 years in its campaign to win full independence for the already autonomous region of north-western Spain. José María Aznar, the outgoing prime minister, vowed to crush this “terrorist band”.

This would be easily ETA's biggest act of bloodshed, far worse than the death of 21 people it blew up in a supermarket in 1987. Indeed, the scale of the attack and the apparent absence of a warning prompted speculation that this might not be ETA's work. ETA, moreover, has almost always claimed responsibility for its deeds. This time, Arnaldo Otegi, a politician close to the movement, denied that the group was responsible, pointing a finger instead at the “Arab resistance”.

The sad truth is that Spain is a target for both kinds of terrorist. Mr Aznar has been a leading supporter of America's “war against terror” and has backed the Americans, with troops, in Iraq (and the anniversary of that war falls next week). On the other hand, only two weeks ago Spain's security forces seized a huge load of ETA explosives destined for Madrid. Last December Spanish police said they had foiled an ETA plot to blow up a train in a Madrid station. And in the summer police arrested an ETA cell that had planted explosives on a railway track outside Madrid.

In any event, the scale of the attack has shaken and angered Spaniards, including Basques, as never before. In the past eight years, under the People's Party (PP), Spain has gained in confidence. Its economy is buoyant, having grown at an annual average of 3.6% for the past seven years. Its standing on the world stage is higher. And, under the stern Mr Aznar, it even seemed to be getting on top of the Basque terrorists. Last year, ETA, which has killed over 800 people in the past 30-odd years, managed to kill only three.

So the attack has served as a painful reminder that Spain's regional animosities are unresolved. Beating terrorism has been a priority for Mr Aznar. Both his PP and the security services reckoned that ETA was on the ropes after two years of successes on both sides of the Franco-Spanish border. The group was known to have wanted to pull off a spectacular to show that it still counts. In the last general election, four years ago, its political arm won almost 8% of the votes in the Basque region. But Mr Aznar banned it two years ago.

Yet if this was an ETA attack, it may smack of desperation. Under the auspices of Mr Aznar's anointed successor, Mariano Rajoy, the PP has been cruising towards its third election victory in a row, with latest opinion polls giving it a lead of around six percentage points. The question in politicians' minds was whether Mr Rajoy and his party would be able to form a government on their own or whether they would have to team up with a regional partner, such as the conservative but moderate Catalan nationalists. Now the PP has a better chance of ruling alone.

Even then, regional politics would be likely to create continuing tension. In the election run-up, the Basque regional premier, Juan José Ibarretxe, of the non-violent Basque Nationalist Party that dominates in the region, has continued to promote a plan for a referendum on the Basques' claimed right to self-determination. The aspirations of both Basques and Catalans to wrest more power from the centre, and the PP's fierce opposition to such notions, have created unprecedented *crispación*, or political tension.

This had already risen sharply earlier this year when it was revealed that the Catalan regional government's number two, Josep Lluís Carod-Rovira, a left-wing nationalist whose party is in a ruling coalition with the Socialists in Catalonia, had secretly met ETA leaders with a view to brokering a ceasefire—but only in Catalonia. The bad blood was stirred still more when a senior Socialist suggested that the discovery of explosives a few weeks ago had been a put-up job by the PP. The Socialists will not make such claims now. But their chances of taking office next week, in Madrid, look even slimmer.

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Russia's presidential election

Sliding to victory

Mar 11th 2004 | MOSCOW
From The Economist print edition

Will Vladimir Putin's new mandate make him dizzy with success?

Get article background

THE election is not until March 14th, but Vladimir Putin's second term has already begun. Although there are signs that his firing of Mikhail Kasyanov, the prime minister, nearly three weeks ago was not premeditated—notably the six-day hiatus before he named a successor—Mr Putin has seized the opportunity. This week he appointed a radically restructured new government, which suggests that he will push hard in his second term for reforms that were stalled in the first.

Jumping the gun is a luxury he can allow himself. Polls give him between 70% and 80% of the vote. Each of his opponents has about the same low-single-figure ratings as when the month-long campaign officially began. Mr Putin is helped by pliant state-owned television networks, which feature the president heavily in newscasts and aired his entire 29-minute speech to campaign workers. Last week Ivan Rybkin, who became Mr Putin's best-known challenger after a surrealistic four-day disappearance in February, pulled out.

EPA

A smooth ride—but where to?

The only risk for the president is that, with the election not only predictable but—as the government reshuffle this week made clear—irrelevant, not enough people will vote. The turnout could then fall below the 50% legal minimum, which would mean a fresh election with new candidates. The parliamentary election in December, which featured genuine competition, pulled in just 56%. Far-flung local authorities have been desperately getting the vote out, with everything from prizes for bringing friends to register to punishments for those who shirk their civic duty. Assuming that he wins, buys or steals enough votes to get past the 50% threshold, Mr Putin will be ready to forge ahead. His new government has investors and economists excited. It has 17 ministers instead of the previous 30, abolishes five of the six deputy prime ministers, and merges several groups of ministries to streamline work on the main policy areas. The new conglomerates include transport, railways and communications; energy, atomic energy, industry and construction; and economic development and trade, which may also absorb several other offices. A new divide between ministries that set policy, services such as regulators that enforce it, and agencies that do such things as issue licences and manage federal property, is meant to reduce conflicts of interest.

Equally striking are the names at the top. German Gref, one of the government's main reformers and previously economic-development minister, keeps his job, but with far wider powers. So does another economic liberal, Alexei Kudrin, the finance minister, who takes the tax under his thumb too. Yet another, Alexander Zhukov, becomes deputy prime minister and overseer of economic policy as a whole. Viktor Khristenko, in charge of energy, will be more likely than his predecessor to tackle the tricky overhaul of the state gas monopoly, Gazprom. And Dmitry Kozak, one of the architects of Mr Putin's plans for slimming the bureaucracy will be in charge of carrying them out, as the cabinet's chief of staff.

What is encouraging is that the other elite clan, the former military and intelligence people known as the *siloviki*, do not feature in this group. That will reassure investors scared by the attack on Yukos, one of Russia's main oil companies, which was thought to be orchestrated by certain *siloviki* with the president's approval. However, as usual Mr Putin has kept his balance: the *siloviki* still run the obvious ministries, such as defence, foreign affairs, internal affairs and justice. And though Mikhail Fradkov, the unassuming, hitherto almost unknown prime minister, is likely to obey Mr Putin, he appears to have *silovik*

connections (witness a gap in his official biography in 1972-73, when some think he may have been trained at the KGB academy before a posting to India).

With the Duma dominated by the pro-Kremlin United Russia party, the result, comments Roland Nash of Renaissance Capital, a Moscow-based investment bank, is “a political machine where policy dreamed up at the dacha over the weekend can be signed into law by close of play on Friday.” The first exercise of this newfound power is expected soon: administrative reforms and some changes to the tax code, on which Mr Kasyanov had been dragging his feet. The bosses of the big natural-resources firms, whose main government ally was Mr Kasyanov, are braced for higher taxes and more meddling in their affairs. Further plans, as set out by Mr Gref in December, include clearer property rights, more money for education and housing, and investment incentives to reduce dependence on natural resources.

But the whole system retains two glaring weaknesses. The first lies in the difference between legislation and implementation. Will super-ministries be any better than single ones grouped under deputy prime ministers? Will bureaucrats charged with eliminating their cosy and corrupt systems of control jump to orders? Will money for social services be siphoned off? How will new laws be enforced without a more honest judiciary? There is no sign of a break in the deadlock over Mr Putin's plans to overhaul the bloated and cash-starved armed forces, which generals have resisted; but the defence minister, Sergei Ivanov, is keeping his job.

The second drawback is that there are no counterweights to the president's power. Bad laws can get through as easily as good ones; if they do, there will be little protest either in parliament or, given the Kremlin's control of the media, in public. One example is changes to the criminal code, hastily passed in the run-up to the Duma election, that cut out a provision allowing the confiscation of stolen property. The old law was too tough, but the new one may make crime-fighting harder. Without public debate to root out such ill-conceived laws, they could build up like genetic mutations, sickening Mr Putin's much-hoped-for superstate.

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Greece's election

Sprinting start?

Mar 11th 2004 | ATHENS
From The Economist print edition

Greece's victorious conservatives have no time for mistakes

Reuters

Karamanlis waves the flag

AFTER spending most of his career in opposition, Costas Karamanlis may have hoped for a breathing-space to learn the new job that he won this week. At 47, Mr Karamanlis will be Greece's youngest-ever prime minister; like most of his cabinet, he has never held even a junior government office. But he will have to plunge in at the deep end; within a few weeks, fateful decisions over Cyprus—the thorniest issue in Greek foreign policy for at least three decades—must be taken. On top of that, preparations for the Athens Olympics in August are lagging behind schedule.

The centre-right New Democracy party's unexpectedly big win in the March 7th election has given Mr Karamanlis a useful boost at the start of his four-year term. Most polls predicted that ND would defeat the Pan-Hellenic Socialist Movement (Pasok) by only a narrow margin, even though the Socialists had held power for 19 of the past 22 years. But in fact ND did better than forecast, capturing 45.4% of the vote to 40.5% for Pasok. The result gave ND a comfortable majority, with 165 of the 300 parliamentary seats to Pasok's 117.

Defeat at the polls gives George Papandreou, the former foreign minister who remains the country's most popular politician, an opportunity to reinvent Pasok in opposition. But while the socialists lick their wounds, Mr Karamanlis must focus on the United Nations-backed effort to reunite Cyprus before May 1st, the date fixed for the island to join the European Union.

Greek- and Turkish-Cypriot leaders seem unlikely to reach a deal by the March 22nd deadline set by Kofi Annan, the UN's secretary-general; so Greece and Turkey will be asked to break the deadlock. Mr Papandreou was keen to broker a deal that would have allowed both bits of the island, not just the Greek-Cypriot south, to join the EU. But Mr Karamanlis's advisers want to avoid being rushed into an accord that could be unworkable.

Mr Karamanlis has picked as his foreign minister Petros Molyviatis, a 75-year-old retired diplomat, who advised his uncle, then prime minister, in the 1970s. Mr Molyviatis is suspicious of Turkey. Although Mr Karamanlis is keen to help Turkey along the road to EU membership, he must contend with elderly Greek-Cypriot leaders who doubt if they can rub along with their Turkish neighbours in a federal state. According to polls, over half of Greek Cypriots may reject the UN reunification plan at their referendum on April 20th. Turkish Cypriots, anxious to enjoy the benefits of EU membership, are more likely to vote “yes”. What the Greeks, in Athens and Nicosia, must calculate is how high a price their side would pay for rejecting what the world sees as the best chance for a deal.

Mr Karamanlis's other immediate headache is the return of the Olympics to their native soil. Greece is expecting its NATO partners to help prevent a terrorist attack during the games. But security preparations, including the installation of a high-tech surveillance system for over 100 Olympic venues, are behind schedule. New transport systems to take spectators to the stadiums are delayed and embarrassingly, the elaborate glass and metal roof designed by Santiago Calatrava, a Spanish architect, may not be ready for the main athletics stadium in time. To speed things up, Mr Karamanlis will head the culture and sports ministry himself. He will have support from Athoc, the games organising body, headed by a former ND deputy, Gianna Angelopoulos-Daskalaki. Mr Papandreou's promise to be a helpful

opposition leader should ease Mr Karamanlis's first few months in office. In return George Alogoskoufis, the new, pro-market finance minister, will hold off on reforms that Pasok-run trade unions oppose, such as full privatisation of Greece's telecoms and electricity companies. With the €4.6 billion ($5.7 billion) Olympics budget already hit by huge cost overruns, and contractors preparing to exact a high price for finishing projects, Mr Alogoskoufis may postpone revealing the state of public finances until the games are over. Superficially, economics should be low on the new government's list of worries, with GDP growing by a thumping 4.5% this year on the back of the Olympics and public works. But from 2007 onwards, Greece's share of EU handouts will fall sharply. So there is only a brief window of opportunity to make the country more competitive by trimming a corrupt, dysfunctional bureaucracy and making it easier to create real jobs. Given that many Greeks thrive off that bureaucracy, Mr Karamanlis must be brave as well as a quick learner.

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Austria's far right

Haider reviver

Mar 11th 2004 | VIENNA
From The Economist print edition

The maverick Austrian bounces back

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FOR over a year, commentators have predicted the electoral demise of Jörg Haider. On March 7th, the far-right Austrian proved them wrong with a spectacular win in his stronghold of Carinthia, where he has been governor since 1999. Mr Haider's Freedom Party won 42.5% of the vote, more than five years ago, and well ahead of the Social Democrats. The Social Democrats made gains mostly from the People's Party, whose vote fell by almost half to 11.6%.

The People's Party had promised not to vote for Mr Haider as governor. But it may change its tune, to keep him busy in Carinthia rather than risk his return to Vienna. There, he would make life harder for Chancellor Wolfgang Schüssel's coalition, in which the Freedom Party is a junior partner.

The vote in Carinthia was a reversal from the general election in November 2002, when the People's Party won largely by winning over Freedom Party voters upset by Mr Haider's ouster of the party leadership, which undid the coalition. The Freedom Party's vote tumbled from 27% to 10%, and Mr Haider pledged to withdraw from national politics. But he continued to meddle from his Carinthian base. Will he now seek further revenge on Mr Schüssel?

The chancellor certainly looks vulnerable. Besides Carinthia, the People's Party lost the governorship of Salzburg, which it had held since 1945, to the Social Democrats. Mr Schüssel's finance minister, Karl-Heinz Grasser, who bolted from the Freedom Party in 2002, is under pressure over a dodgy donation for his website. As voters feel cuts in social spending, Mr Schüssel may lose more support. Yet Mr Haider's options are limited. If he rattles the coalition too much, he will hurt his own party, which has few other talents and little voter appeal outside Carinthia. It lost heavily in Salzburg, and it faces a struggle in the European parliamentary elections in June. If he were now to bring down the government again, his party might be wiped out at the national level.

Yet the Social Democrats fear a head-on confrontation between Mr Schüssel, a formidable campaigner, and their clever but colourless leader, Alfred Gusenbauer. Their hope is that Mr Schüssel might take over from Romano Prodi as president of the European Commission later this year. But Mr Schüssel may prefer to stay on, fending off Mr Haider's eruptions and calculating that, by 2006, an economic upswing may arrive in time to re-elect his coalition.

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France's far right

Effrontery

Mar 11th 2004 | TOULON
From The Economist print edition

A report from the National Front's southern heartland

Get article background

“THE politicians stink,” hisses a woman piling fat, waxy lemons into her basket in the market. “And the only one who dares to say so is Le Pen.” Will she vote National Front even though its leader is no longer standing in the regional elections later this month? “Ah, bon?” She is surprised at the news. “Shame. Well, the National Front will still be safe here.”

The politicians officially kicked off their frantic campaigning for the elections, to France's 22 regions, this week. The mood in Provence-Alpes-Côte d'Azur (PACA) is more sober—but also scary. Sober, because of indifference: campaign posters are scarce in Toulon, a naval base east of Marseilles, and Hyères, a local resort. The abstention rate at regional polls nearly doubled between 1986 and 1998, to 42%. This time, voters are being asked to turn out in two rounds: many will not bother.

The scary part is that it is no longer meaningful to talk of the National Front's return: it never went away. For the PACA region is big on Jean-Marie Le Pen. Since 1986, the Front's score has not dipped below 20%, surging to 27% in 1998. Some 17% of French voters backed Mr Le Pen in the first round of the presidential elections in 2002; fully 23% did in PACA. The National Front in the south is an organised electoral machine, not a bunch of men in jackboots. At its offices in Toulon, which the party governed in 1995-2001, middle-aged women in twin-sets stuff envelopes and put posters in boxes. The menace is not the Front's return, but its entrenchment.

Will the last-minute barring of Mr Le Pen, on technical grounds, dent the Front's vote? Both the centre-right and the Socialists are ahead of the Front in the polls. Mr Le Pen's replacement, Guy Macary, has none of the boss's charisma. Yet polls mask the Front's appeal. As a voice of protest, it is a tough party to take on: there is always something to protest against. And, although Mr Le Pen is best-known for his anti-immigration views, the party's young guard, such as his daughter, Marine, who is standing in the Paris region, promote a more respectable populist nationalism. The Front's leaflets make less of immigration than of other complaints, such as crime, taxes, globalisation and corruption.

This speaks forcefully to the shopkeepers, farmers, artisans, small businessmen and jobless who form the Front's electoral backbone. Unemployment in the south is above the average; much work is unsteady and seasonal. Insecurity is the underlying impulse. The Front's strength is not so much in towns that have lots of immigrants as in those that fear they could end up that way. Pascal Perrineau, a political scientist, calls this the “halo effect”. The Front holds Orange, in Provence, but not Marseilles, which has more immigrants. A local Front official detects growing support inland, where people are fed up with vandalism, crime and a sense that public cash goes only to the Riviera. In some of them, he expects to win over 50%.

The Front may not seize the region, which could switch from Socialist to centre-right control. But this would hardly count as a big defeat. By forcing a three-way second-round run-off in the south, and elsewhere, the Front will again reveal the disillusion with the mainstream political class. In Toulon's Lafayette market, anti-elitism falls on ready ears. A woman selling artichokes says bluntly: “They are all as bad as each other.”

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Albanian smuggling

Adriatic crossing

Mar 11th 2004 | VLORA
From The Economist print edition

Unstoppable people- and drug-trafficking in the Balkans

THE dusty port of Vlora, in southern Albania, is the starting-point for one of the world's busiest illegal-immigration routes. The 41 miles (65km) to Italy takes only two hours in a fast boat. Gazmend, a waiter, recalls that, until the government cracked down last year, speedboats would wait in the harbour like taxis. The boats are hidden now—but the trafficking continues, sometimes with tragic results. One night in early January an inflatable carrying over 30 people, mostly illegals, put out in high seas. The boat, designed for 6-8 people, was soon swamped. Despite rescue efforts by the Albanian, Italian and Greek navies, 21 people died of exposure.

Desperate people from the Balkans and as far afield as Iraq and Afghanistan pay as much as €1,300-1,500 ($1,700-1,950) to make the crossing. Other unlucky passengers are women being trafficked into prostitution. The Italian and Albanian navies co-operate, but it is hard to stop a boat at sea. Commander Ilir Manco of the Vlora naval district says that the smugglers like to cross in rough seas at night. “When the seas are up, the boats are invisible to radar and the naked eye. Even if the boats are spotted, they move at between 35 and 70 knots, far faster than most of our boats, and sometimes they can outrun helicopters,” he explains. He laments that, although the Americans and Italians have donated some boats, they are often faulty or lack spare parts. On some, for example, the rudders have never worked.

Marco Nicovic, a former chief of Belgrade's police, says that Albanian traffickers have close links with Turkey and Kosovo, as well as with the diaspora in western Europe and America. They control a high-quality smuggling channel for people, heroin and cigarettes. He notes that they work with Serbs, Montenegrins and even Russians; in crime, politics and history count less than profit.

Tougher security may not stem the tide. Albania is Europe's poorest country. Erion Veliaj, leader of a civic-action group, notes that 750,000 Albanians (almost a quarter of the total) live below the poverty line; some 15% are officially unemployed; only 18% have uninterrupted electricity; just one in six households has running water. A rash of new apartment buildings in Vlora points to the rich pickings made by the traffickers. The long slog to prosperity is the only sure way of putting a stop to them.

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Turkey's Kurds

Hope in the air

Mar 11th 2004 | DIYARBAKIR
From The Economist print edition

Changes in Iraq give a chance of peace between Turks and Kurds

AS IRAQI Kurds took to the streets to celebrate an interim constitution that guarantees them unprecedented rights (see article), their restive Turkish cousins rejoiced too. “We can't believe this is happening, it's too good to be true,” rasped Cemil Oter, a Kurdish tribal chief, who, like many of his ethnic kin, was glued to a Kurdish television broadcast from Iraq.

Under Iraq's new laws, some 4m Kurds will keep their own regional government, parliament and police. Their language has been designated one of Iraq's official tongues. For the authorities in Turkey, home to three times as many ethnic Kurds, the changes in Iraq are a bit unnerving. They suspect the Americans (who deny it) of having a plan for an independent Kurdish state in northern Iraq. If that—or anything like it—came about, it could refuel separatist violence among Turkey's Kurds.

Yet some people in Turkey are beginning to argue that, instead of pointing fingers at American troublemakers, the country would have less to fear if it gave its own Kurds, whose existence as an ethnic group has long been denied, a better deal. Some moves have been made in that direction. Egged on by the European Union, which Turkey hopes to join, parliament has approved laws enabling Turkey's Kurds to broadcast in and teach their language in privately run courses for the first time. A draft law curbing the powers of the central government will give regions, including ten largely Kurdish provinces, greater control over health and education.

Still, implementation has been slow. Kurdish politicians continue to be prosecuted for such offences as addressing public rallies in their mother tongue. Mr Oter and his friends celebrated the Iraqi Kurds' new gains in the privacy of their homes, for fear of being arrested. And Ankara's hawkish generals still want all Kurds kept on a tight leash—on the ground that 5,000 armed Turkish Kurds holed up in Iraq may still be a threat.

That argument may be losing some of its force, however, because of a power struggle that has been raging among the Turkish Kurds, armed and otherwise. A feud has erupted among leaders of the PKK guerrilla group, which waged war against Turkey in the name of separatism and Marxism, until its leader, Abdullah Ocalan, was captured in 1999.

The row broke out when Osman Ocalan (the new PKK boss, and brother of Abdullah) said he wanted to disarm the group—under a deal with the Americans. The Americans deny any contact with Osman. He has been declared a traitor by most rebels, who want to keep their guns. But it is still amazing to see a PKK bigwig, at liberty, becoming a pro-American dove.

Tensions in the PKK have spilled over to Turkey's largest pro-Kurdish party, Dehap, as it prepares for local elections on March 28th. It is no secret that the PKK has the final say over who runs on the party ticket. So far, hardliners have had their way, notably with the ditching of Feridun Celik, mayor of Diyarbakir, who is backed by Osman Ocalan. Mr Celik declared his candidacy as an independent, only to withdraw amid death threats—despite claiming to have backing from both Ocalans. The stance of Abdullah Ocalan—isolated even from his own lawyers over the past month in his cell near Istanbul—is a mystery.

Equally opaque is the degree of influence he still wields over his followers. Any loosening of the ties between the armed Kurds and unarmed ones in Dehap could, in a paradoxical way, make life trickier for the Turkish authorities. Up to now, they have relied on Abdullah Ocalan to send messages of restraint to his erstwhile comrades, and he has duly obliged.

But what if signals from Abdullah's prison cell lose their effect? As a last resort, Ankara might try an alternative strategy: reaching out to its Kurdish citizens to persuade them that their interests lie in staying in a democratic state that is on its way to joining the EU. What would this take? A first step might be an amnesty for all PKK fighters; another would be compensation for the 1m Turkish Kurds forcibly displaced during the PKK rebellion. Even more boldly, Turkey could embrace Iraq's Kurds as political and economic partners. These are not easy nettles for any Turkish government to grasp; but if the prize were lasting peace between Turks and Kurds, it would be worth some stings.

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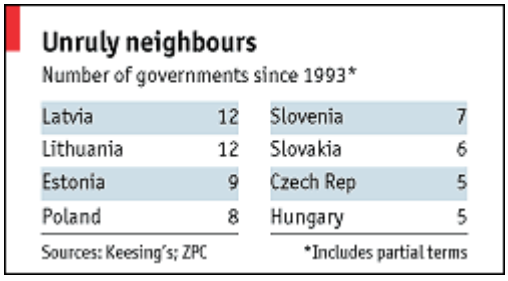
Central Europe's governments

Happiness begins abroad

Mar 11th 2004 | RIGA
From The Economist print edition

Unhappy voters make for unstable politics



IN LATVIA this week the country's 12th government in 13 years took office—shakily, so it too might not last long. In Poland the Socialist-led government staggers on, but polls give it just 12% support, less than half as much as Civic Platform, the main opposition party, and less even than support for Samoobrona, a party for potato-throwing peasants. Slovakia's fractious centre-right coalition government is in danger of losing its finance minister, as opposition parties discuss a censure vote. In Lithuania the impeachment of President Rolandas Paksas is fuelling support for populist parties on left and right. And disloyal Czech MPs are endangering the coalition's majority in parliament, provoking talk of a hitherto unthinkable alliance between the Socialists and the unreconstructed Communist Party.

So much for hopes that the prospect of joining the European Union on May 1st might calm the unruly party politics of central Europe. On the contrary, knowledge that EU membership is in the bag seems to be encouraging voters and politicians to put even less value on stability and decorum in government. Elections to the European Parliament in June may allow voters to deliver another rebuke to their governments, perhaps by sending populists and Eurosceptics to disturb the somnolence of Strasbourg.

Venal and opportunistic politicians are largely to blame for the proliferation of weak parties and the frequent collapse of coalitions around central Europe. But voters must take some responsibility for shifting loyalties so lightly. A new study for the European Commission hints at a possible cause*. It finds that central Europeans are less happy with life than western Europeans: only 64% of those in candidate countries are fairly or very satisfied with their lives, compared with 87% for the existing EU 15. Central Europeans are also more inclined to blame “society” than themselves for their problems. These views make it easier for demagogic politicians to mobilise support, even if they almost invariably disappoint their supporters.

The happiest country, the study finds, is Slovenia (with a 90% rating). It is no coincidence that Slovenia has central Europe's highest standard of living—and one of its more stable political climates.

* “Perceptions of Living Conditions in an Enlarged Europe”, European Commission and the European Foundation for the Improvement of Living and Working Conditions, 2004

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Charlemagne

Wider still and wider

Mar 11th 2004
From The Economist print edition

Where do the eventual boundaries of the European Union lie?

GROUCHO MARX famously remarked that he did not want to belong to any club that would have him as a member. The European Union faces the opposite problem. It is a club that does not appear to want anybody who applies for membership. One senior official comments that “the countries that are most attractive to us as future members are small, rich ones like Norway and Switzerland.” Unfortunately the Swiss and Norwegians show no signs of wanting to join. All the would-be new members are poor or big, or both.

On May 1st the EU will formally admit ten new countries. Most of them are from central Europe, and all are poorer than the EU average. Then, 2007 is the target date for the EU to let in two more relatively poor countries: Bulgaria and Romania. That would mean an EU of 27, which would become 28 if Croatia manages, as it hopes, to slip in at around the same time. By the end of this year, the EU is due to decide whether formally to open membership negotiations with Turkey—a country that is not only poor and big, but also Muslim. The betting in Brussels is that, unless the Cyprus re-unification talks go badly awry, Turkey will secure its invitation to start negotiations. And that means that eventual Turkish membership will become almost inevitable—perhaps by around 2015.

By then, the four remaining western Balkan countries—Albania, Bosnia, Macedonia and Serbia—might also be joining the EU; Macedonia has already applied. And if Turkey gets in, is there any real argument for keeping out Ukraine, Moldova, Belarus or Georgia (whose new government has just announced that its long-term goal is to “join Europe”)? Some people have talked of Russia joining the EU one day; others have mentioned Israel, a putative Palestinian state or even Morocco.

All this enthusiasm for Europe should be intensely flattering to the bureaucrats of Brussels. After all, it is the mark of a good club that people clamour to become members. An ever-larger EU might also bring big benefits. It would create a political unit with a huge population, furthering the Union's ambitions to be a global power. The EU is also effective at moulding the behaviour of would-be members. The hope is that by exporting European laws and values, it can expand a zone committed to prosperous and peaceful co-existence and the rule of law.

Yet in reality many of today's members view the prospect of an ever-expanding Union with a mixture of fatalism and dread. There are several reasons for this. The first, inevitably, is money. The EU redistributes billions of euros from rich to poor members: more poor members means more claimants on the purse. A second is immigration. One of the Union's fundamental principles is that there should be freedom to move from one member country to another. But anti-immigration parties are gaining ground across western Europe; they could make huge political capital out of potential Turkish membership.

Then there is the feeling that a larger EU might simply be unable to function. If you add in all the Balkan countries, Turkey and a further scattering from the former Soviet Union, you soon arrive at a European Union of almost 40 members. In a book published this week, Frits Bolkestein, the Dutch European commissioner, argues that “the larger the group, the fewer decisions it can take.” To get any decisions in an EU as big as 40, remaining rights to national vetoes would surely have to go. On current population projections, moreover, Turkey could be the biggest member in 15-20 years' time. It would thus command the biggest block of votes, in a Union that is already responsible for as much as 50% of the new domestic law in its member countries.

Contra vox pop

Ordinary citizens in today's EU of 15 could come up with any number of plausible-sounding objections to Turkish or Ukrainian membership. They are not really European, they are too poor, they are too different. But all such objections have been defined away in Brussels. Turkey was accepted as at least a potential candidate as far back as the 1960s, on the basis that part of its land-mass is in Europe. As for Ukraine or even Russia, they surely fit the traditional geographic definition of a Europe that stretches from the Atlantic to the Urals.

Moreover, the European Union has consistently rejected the idea of insisting on a minimum level of income or wealth for EU members. Its only serious economic demand is that members should have a “functioning market economy”.

The question of European values may be the most sensitive of all. Some people in today's EU may believe that the borders of Europe are those of traditional Christendom, but this position has never been formally endorsed by EU leaders. They are understandably wary of ethnic- or religion-based definitions of Europe. After all, today's Union already has millions of Muslim and black citizens. Two possible future members, Albania and Bosnia, are mainly Muslim by heritage. Instead the EU defines itself as a “Union of values”. Any European country that embraces democracy and human rights is fit for membership.

Citing national interest or public opinion might seem a standard procedure in discussing a far-reaching foreign-policy decision in a nation-state. But it is regarded as barely respectable in the multinational European Union. The EU is comfortable talking about values, but uncomfortable talking about interests. And it has consistently been built over the heads of its citizens. Although all ten new members held referendums to approve their entry, voters in the 15 existing members were not consulted. Opinion polls in France show strong opposition to this enlargement. But when the French government tentatively floated the notion of holding a vote to approve it, this was swiftly denounced and quickly dropped. Whether such high-minded elitism will be enough to drive through the even more controversial enlargements to come must be open to question.

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Judges and the constitution

Wigs on the warpath

Mar 11th 2004
From The Economist print edition

Senior judges are on the march. Do they know where they are going?

A SERIES of hasty and ill-conceived government initiatives have turned the most doddering judges into rebels over the past few weeks. But they are less of a menace than they appear. As a body, the judiciary lacks the organisational skills of the most rudimentary mob. “Judges are much too individualistic,” says one retired Law Lord. “You will never get them to agree where they are going.”

What most judges can agree on is that they are angry with the government. In the past nine months, senior wigs have been shocked by legislation abolishing the Lord Chancellor, an anomalous office that gave them a voice in the cabinet. The same legislation proposed to root them out of the House of Lords and into a Supreme Court, the location and degree of sumptuousness of which have yet to be decided. Finally, the home secretary, David Blunkett, moved to curtail judges' powers to review asylum and immigration decisions. This endangers what has become a steady and interesting line of work, and sets a troubling legal precedent.

The first two measures were remanded to a committee on March 8th, thanks in part to pressure from current and former Law Lords; if they ever emerge, they may be heavy with amendments. The move to curtail judicial review is likely to be mangled in the House of Lords next week. But such victories are unlikely to mollify the judges. The most vocal would like to make sure that government stunts of this kind are avoided in future, preferably by making them illegal.

Liberal judges have struck the broadest blows. Last week witnessed a simultaneous attack by Harry Woolf, the Lord Chief Justice, and Johan Steyn, a senior Law Lord. Both argued that the government was acting against constitutional precedent and the rule of law, and that further incursions might precipitate a crisis.

As rhetoric, this is impressive stuff. The problem is that the judicial rebels have neither precedent nor law squarely on their side. The notion that access to justice represents an eternal right is “a piece of mythology”, according to Robert Stevens, a fellow at University College London's Constitution Unit. The Law Lords declined to review detentions of suspicious characters during the second world war, and remained meek for a further two decades. Innovations like the National Health Service were protected from meddling, anti-socialist judges by measures similar to those in the new asylum bill.

Even harder to get around is the fact of parliamentary supremacy. Where America maintains a separation of executive, legislative and judicial powers, Britain has a “balance” between the three. This does not guarantee equal weight to all, though, and certainly not to the judges. The courts gained clout in 1998, when they were given powers to declare legislation incompatible with the European Convention on Human Rights. But outside Scotland, they cannot strike it down. In a bare-knuckled constitutional fight with the cabinet, the judges would still lose.

The more enterprising reckon they have solved this problem. Digging up 16th-century precedents, they argue that Parliament is both supreme and constrained by law. As Lord Lester, the Liberal Democrat spokesman in the House of Lords, explains the doctrine: “The powers of Parliament come from the recognition by the judges of the supremacy of Parliament.” If so, that would mean that it is impossible for the House of Commons to override the constitution—a point that Lord Steyn has argued with increasing force in recent speeches.

Such a stance is only as solid as the British constitution, of course. That has become a little firmer recently, thanks to the incorporation of European human rights law and the devolution of powers to Scotland, Wales and Northern Ireland. Britain now has many of the statutes that, in other countries,

comprise a constitution. They are of rather recent vintage, but a neat sleight of hand turns them into eternal principles. Several senior judges, including the Lord Chief Justice, have argued that European human rights law simply sets down common law principles that have existed in Britain for centuries.

As for how to resist an executive bent on constitutional vandalism, though, the judges cannot agree. The most outraged are hinting that pressure for a definitive written version may soon become overwhelming. They are probably wrong. Countries produce formal constitutions following deeply traumatic events—revolutions, civil wars, military defeat and so on. In peacetime, it isn't worth the expenditure of political capital. In any case, there are judges who believe the judiciary is strongest when its powers are least formally defined. They are keeping their heads down, murmuring that the government can override human rights law, so long as it clearly knows what it is doing.

These hitches will be removed more quickly if Labour gets its way on constitutional reform. If the Lord Chancellor is abolished and the senior judiciary removed from the Lords, they will probably start to think of themselves less as a court of appeal and more as an authoritative constitutional court. It would be a nice irony if, having egged the judges on to the barricades, the government turns them into a disciplined fighting force.

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Equitable Life

A sorry and convoluted tale

Mar 11th 2004
From The Economist print edition

Policyholders' hopes for compensation are dwindling

WHO was to blame for the Equitable Life debacle? Ever since the world's oldest life insurer nearly collapsed almost four years ago, the argument over the reasons for its troubles has raged.

Policyholders ganged up in seven different action groups to fight for their varying interests, the company launched lawsuits against its former directors and its former auditors, Ernst & Young, while the Treasury asked Lord Penrose, a Scottish judge, to examine the reasons for the sudden demise of the industry's former star. After more than 30 months Lord Penrose published his report on March 8th. His findings upset the company and dismayed many policyholders, but came as a relief to the government.

Until now many thought the main cause for the firm's problems was the House of Lords' ruling on July 20th 2000 forcing the firm to pay guaranteed annuity rates to some 90,000 pensioners for policies written during the high-inflation era of the late 1970s and early 1980s. That verdict blew a vast hole of £1.5 billion ($2.25 billion) in the mutual's accounts. In August 2000 Equitable Life warned its policyholders to expect lower returns on its main “with profits” policies, which smooth investment returns between good and bad years; and in December it was forced to close its books to new business.

Lord Penrose concludes that the Lords' ruling was only the final straw after years of mismanagement. The main and most significant failure was at the heart of the company. For years managers were “over-bonusing”—promising more in bonus payments to policyholders than was justified by the company's underlying assets. They bolstered the firm's solvency by “the consistent...adoption of the weakest valuation basis” in addition to valuation practices of “dubious actuarial merit”.

Lord Penrose describes Roy Ranson, the firm's chief executive from 1991 to 1997, as manipulative, obstructive and dismissive. He says the company board had neither sufficient information nor the skills to come to grips with the finances of the firm. As non-executive directors were wholly dependent on input from the actuary—none other than Mr Ranson himself—they were incapable of exercising any influence on Equitable's actuarial management.

The report has turned out rather better for the government. The failings of the company's three regulators, the Department of Trade and Industry until 1997, the Treasury in 1998 and the Financial Services Authority (FSA) from 1999, are not bad enough to provide powerful ammunition to those clamouring for compensation. Though he found them startlingly incompetent, Lord Penrose did not reckon that regulators acted in bad faith. And the government can claim that the “light-touch” insurance regulation at the time was of its predecessor's making.

This is a blow to many policyholders who are hoping to build a legal case for compensation against the government for its failure to spot Equitable's troubles. They estimate their total losses to be some £3 billion. On average, policyholders lost 25% of their savings, say the action groups, though some saw their nest eggs halved.

Policyholders could mount a credible legal challenge against the government if they were able to prove “misfeasance”—the regulator deliberately acting against policyholders' interests. A lax regulatory regime is not enough for a successful lawsuit, says Alan Owens at Irwin Mitchell, a law firm that has acted on behalf of over 400 former Equitable Life policyholders. Even so, the Equitable Members Action Group is considering taking its grievances to the European Court of Justice under the European Union's third life directive, which requires EU governments to regulate life insurers properly.

Policyholders could still sue the company, but they would hurt other members of the mutually owned

firm. Hundreds of policyholders have already been compensated with a settlement out of court. If many more policyholders were to sue the firm, the company might go bust, a tempting scenario for some. The Financial Services Compensation Scheme—an industry-financed scheme compensating the first £2,000 of a claim in full and 90% thereafter—would be triggered.

The scheme, however, only covers the “guaranteed” parts of a policy. Ned Cazalet, an insurance consultant, warns against such action because bankruptcies are messy and policyholders will probably still get a better deal with the company by running off their policies.

The Equitable saga will rumble on for years. Its most positive effect has been the shake-up of Britain's lax insurance regulation. The FSA has already been much tougher in its scrutiny of the solvency of Standard Life, another mutual with fragile finances. But Equitable Life dented confidence in pension savings vehicles. Trust has been the victim.

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GM farming

Frankenfood approved

Mar 11th 2004
From The Economist print edition

Some GM crops can now be grown in Britain. How scary is that?

“JUNK science” is how Elliot Morley, Britain's minister responsible for genetically modified farming, describes studies that claim GM crops would be hazardous to Britain's wildlife and consumers. This week the government granted permission for a strain of GM maize to be grown commercially as cattle feed. That has incensed environmentalists and organic farmers, who say GM is unpopular (probably correct) and based on bad science (probably not).

Three years of field testing have shown the herbicide-resistant maize, Bayer's Chardon LL, to be safe and even kinder to the environment than non-GM maize. Two other crops on trial—a GM sugar-beet and a GM oilseed rape—will not be grown because they were worse for biodiversity (weeds) than conventional strains.

The trials have not made the worries about introducing even a safe GM crop go away, though. Opponents say GM will stealthily take over the country by cross-pollination, will damage wildlife and introduce something nasty into the human food chain. How solid is all this?

Evidence from America, which planted 105.7m acres of biotech crops in 2003, suggests concerns are overblown. In practice it is easy to separate crops and prevent them from cross-pollinating. Even oilseed rape, which is particularly promiscuous, can be kept over 99% pure if it is a hundred metres away from another plantation. Cross-pollination probably will happen, but so far it has caused no problems: genetic material in plants changes all the time through sexual reproduction anyway.

Damage to wildlife is difficult to measure, but there is evidence that GM has had a positive effect, with birds and insects returning to GM cotton plantations in America. Certainly, GM crops tend to need fewer chemicals to protect them. Monsanto says its sugarbeet, which was on trial along with the Chardon maize, requires 46% less herbicide than a conventional strain. Supposed threats to consumers, whether human or animal, are the most flaky. One recent study appeared to show that Chardon maize could be fatal to cattle, but the heifer in question in fact died from botulism. The British Medical Association now says there is “very little potential for GM foods to cause harmful health effects” in people either. People have been eating the stuff in America for years, with no ill effects so far.

The messing around with genetic material that makes some people dislike GM crops has gone on for years in conventional plant breeding, where crops are exposed to radiation and chemicals to encourage them to mutate. According to the International Atomic Energy Agency in Vienna, over 2,000 types of crop have been bombarded with gamma rays to produce mutants, many of which are grown by organic farmers.

“All food is frankenfood,” according to Professor Howard Dalton, chief scientific adviser to the Department for Food and Rural Affairs, “but everybody's got used to it.” Maybe everybody will get used to GM soon, too.

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Horseracing

Fixed?

Mar 11th 2004
From The Economist print edition

Shocking talk of race-fixing has cast a cloud over the turf

IS THIS the twilight of British racing? You might think so, after all the hand-wringing this week over the "integrity" of the Sport of Kings. This started when Kieron Fallon, a famous Irish jockey, was suspended by the Jockey Club for three weeks for failing to ride his mount with maximum effort at Lingfield racecourse. A few days later, a lesser-known rider named Sean Fox appeared to dismount in a race at Fontwell Park. Both incidents are surrounded by lurid tabloid talk of tips and irregular betting.

Scandal in racing is hardly new, of course, and recent ones have caused nowhere near the stir created a century ago, when a fictitious race called the Trodmore Hunt Steeplechase was invented purely to fleece bookmakers. The recent furore has a modern twist, however, in that it seems to point a finger at online betting exchanges. These upstart bookmakers, which have enjoyed massive success, allow punters to bet against each other via the internet, rather than against a trilby-hatted bookmaker. More questionably, in some people's eyes, online betting exchanges let you "lay" odds on a horse—in effect, betting on a runner to lose, something that has long worried the toffs who run the British Horseracing Board. In addition, the anonymity offered by betting websites would seem to make them a magnet for cheats. Parvenu internet entrepreneurs, goes one line of thinking, are enabling a massive rise in race-fixing.

A nice tale, but implausible. According to Leighton Vaughan Williams, head of the Betting Research Unit at Nottingham Trent University, it has long been easy to profit from dishonest jockeys, even before you could win by betting on a loser. It is especially easy in races with few runners, such as the two races being questioned now: if punters have information that the favourite's jockey is going to take a dive, they can bet on one or two of the other horses with short odds.

Moreover, betting exchanges are far less anonymous than walking into a High Street betting shop and laying down a few quid. Online accounts are vetted to ensure that you are who you claim to be (and that you are not betting from America, which would break the law there). Online betting, points out Professor Vaughan Williams, makes dodgy betting patterns visible. The online exchanges, such as Betfair, one of the biggest, have agreed to share information on suspicious bets with the Jockey Club, which was how the scrutiny of Mr Fallon's actions was started.

Still, claims that the betting exchanges are somehow culpable have gained enough currency to cheer the traditional bookies, who are furious at the online upstarts' success. A recent government decision to give the exchanges what the bookies claim is favourable tax treatment has only upset them more. A select committee is now sitting to fix, as it were, regulation for the coming liberalisation of the gambling industry. If the government makes it harder for them to offer "lay" bets, their business would be seriously damaged.

The Jockey Club has been trying for years to prosecute a jockey successfully for race-fixing, even offering big rewards since the 1990s, but has never managed it. That is no surprise in a sport where the mix between man and animal is so uncertain. Lester Piggott, perhaps Britain's most famous jockey, was dogged by rumours of dodgy practices. When he finally went to jail, it was for tax evasion.

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Terror detainees

In trouble with the law

Mar 11th 2004
From The Economist print edition

Has the British government's treatment of foreign terror suspects been so much fairer than the Americans'?

AFP

And out they go

AS FIVE of the nine British detainees in Guantánamo Bay prepared to fly back home this week, David Blunkett, the home secretary, compared their much-criticised treatment at the hands of their American jailers with the way in which Britain has dealt with its own foreign terror suspects. “I believe the system we have put in place is fair and open; people have a right to legal representation and to challenge the decisions taken. That is not the case in Guantánamo Bay,” he told a meeting at Harvard Law School. He might not have been quite so smug had he known about the damning judgment by an English court of his handling of a terror suspect held in Belmarsh high security prison for the past 16 months without charge or trial.

In a ruling delivered on the same day, a three-judge panel of the Special Immigration Appeals Commission said that the evidence against the 37-year-old Libyan, identified only as “M”, was “wholly unreliable and should not have been used to justify detention”, and ordered his release. M is the only one of 14 foreign suspects being held in Britain under the 2001 Anti-terrorism, Crime and Security Act to have had his appeal against indefinite detention upheld. The Home Office is appealing.

Mr Blunkett had argued that M continued to pose a threat to Britain's security. But the tribunal found that the evidence purportedly linking M with al-Qaeda had been exaggerated, while some assertions made by security-service witnesses were “clearly misleading...inaccurate and conveying an unfair impression”.

The following day, there was public consternation when four of the five Britons released from Guantánamo Bay were promptly arrested by anti-terrorist police on their return to Britain—despite Mr Blunkett's earlier statement that none of them posed “a threat to the security of the British people”. But after nearly two days of questioning they were released without charge. The fifth man had been freed within hours of his return.

From the outset, it looked unlikely that any of the returning men would face trial. Prosecuting people for offences not committed on British soil is difficult, and much of the evidence collected by American interrogators would anyway have been inadmissible in English courts. But the absence of any trial will make it harder for the men to clear their names.

Lawyers for the freed men have demanded that America be made to “answer for the injustice” they had suffered by being held for more than two years at Guantánamo without charge or access to lawyers, courts or family. One of those lawyers described his client's treatment in America as “cruel, inhumane and degrading”. Another was blunter, claiming it amounted to “torture”. But it will be difficult to find a court willing or able to examine the men's complaints.

The European Court of Human Rights could not take on the case as America does not come under its jurisdiction. Nor could the newly established International Criminal Court, as the alleged offences were not committed by, nor took place in, a party signed up to the court (neither America nor Cuba are signatories). And the International Court of Justice hears only disputes between states. Even an apology is unlikely to be forthcoming.

Four Britons remain in Guantánamo. None has yet been charged, though two are among the first six

detainees designated for trial before a special American military tribunal. An unnamed Bush administration official claimed this week that the four Britons were too dangerous to be released. All had been picked up in the “combat zone” of Afghanistan and had undergone terrorist training in al-Qaeda camps, he said.

Mr Blunkett promised this week to ensure that the four Britons got a “fair deal”. But he also indicated for the first time that he expected them to stand trial in the United States where, he said, the evidence against them would be “best used”. Until now, the British government has always insisted that the British detainees should be repatriated unless they could be given the internationally recognised minimum guarantees for a fair trial. This they still have not got.

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Economic recovery

Lopsided

Mar 11th 2004
From The Economist print edition

The economy remains worryingly out of kilter

GORDON BROWN will find it hard to resist saying "I told you so" when he presents his budget on March 17th. A year ago, the chancellor of the exchequer was derided for over-optimistic growth forecasts; now they appear quite reasonable. The economy expanded by 2.3% in 2003, bang in line with the Treasury's central prediction. The Bank of England is currently expecting growth of almost 3.5% in 2004, the upper limit of the chancellor's forecast.

But Mr Brown should go easy on the self-congratulation. The government has been hoping that the recovery will not just strengthen activity but will also restore balance to the economy, making it less reliant upon a consumer boom fuelled by gains in housing wealth. A month ago, Mervyn King, governor of the Bank of England, said that consumer spending was likely to slow as house-price inflation abated and that the outlook for exports had brightened. As a result, "a long overdue rebalancing of the economy is now in prospect."

There was scant evidence of that in figures released this week. Exports and industry were weak while the housing market has flared up again. Britain's trade deficit in goods and services widened from £3.1 billion in December to a record £4.6 billion in January. The deficit in goods deteriorated to a record £5.6 billion. Merchandise exports declined sharply, especially to America, raising fears that the strength of sterling against the dollar is already taking its toll.

The downturn in exports has hit Britain's long-suffering industrial sector. Recent surveys of manufacturers have signalled a strong upswing. However, manufacturing output rose in January by a meagre 0.2%; in the three months to January production was flat compared with the previous three months.

Unwelcome weakness in the external sector of the economy is being matched by unwelcome strength on the home front. The official index of house prices recorded a sharp fall in inflation from over 25% at the start of last year to 8.3% in December. However, it rose to 9.7% in the year to January. The Nationwide building society and the Halifax bank have already reported a further acceleration in February.

Mr Brown's worry is that his growth forecast will come true this year but for the wrong reason. Growth will continue to rely upon the consumer, rather than on business investment and exports. That is fine as long as it lasts. The danger is that the higher that house prices rise, the more likely and the more damaging an eventual setback becomes.

This danger was underscored on March 5th by the International Monetary Fund in its annual appraisal of the British economy. The IMF said that the principal risk to a strengthening recovery was the possibility of "a hard landing in house prices and consumption". It estimated that house prices are over-valued by 30-35%.

The nightmare for Mr Brown is that a hard landing may materialise next year when the Labour government is planning to hold the general election. Voters have been prepared to tolerate Labour's disappointing record in improving the public services because the economy has performed well. They may turn nasty if the housing market goes belly-up.

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Retail rivalry

Glasgow's big spenders

Mar 11th 2004 | GLASGOW
From The Economist print edition

Why retailing in Scotland's second city is better than in Edinburgh

THE “Glasgow's miles better” slogan, launched back in 1984, is, along with “I love New York”, regarded as one of the few successful city re-branding advertising campaigns. Tourists came flooding in, halting years of economic decline. Now the city's bosses have decided to do it again. They announced on March 9th that they will spend £1.5m on promoting “Glasgow: Scotland with style.”

Noses were immediately out of joint elsewhere, especially 50 miles to the east in Edinburgh, Glasgow's snootier rival. It regards itself as the last word in everything Scottish. But in one respect at least—shopping—west is best. According to Experian, a business consultancy, Glasgow is Britain's second-best retail centre, just behind London's West End and way in front of 16th-placed Edinburgh.

Given that the Scottish capital has wealthier residents, this seems odd. Size has something to do with it—Glasgow's hinterland has about 2.3m people, Edinburgh's about 800,000. Glasgow also has a good suburban rail system, streets that lend themselves to wandering shoppers, plenty of car parks; Edinburgh has none of these things, says Leigh Sparks, professor of retail studies at Stirling University.

Still, that doesn't explain why Glasgow has quite so many pricey clothes shops. Versace, for example, put its first British store in Glasgow in 1991 and the company says trade there is as good as in London. Armani and others quickly followed.

It may be something to do with local tastes. A long mercantile history based on transatlantic shipping means that Glaswegians are used to buying the latest fashions, says Chris Moore, professor of retailing at Glasgow Caledonian University. He reckons that, just as Glaswegians delight in the latest architectural vogue—they took to the mould-breaking designs of Charles Rennie Mackintosh in the early 20th century, while Edinburghers stuck to sober neo-classical facades—so, he reckons, they are quite happy to be a bit extravagant or “gallus” in the local dialect. Cheaper housing costs may play a part, he thinks. “A retailer once said to me that people in Edinburgh are too busy paying for their house to shop, while Glasgow folk are just busy paying for their handbag.”

Edinburghers may be latching on to the joys of shopping, Mr Moore says that random street surveys have found that 17-20% of Glasgow shoppers are actually from the capital. Recent retailing arrivals in Edinburgh, such as Harvey Nichols and Hugo Boss, hope to keep them in the east. But Glasgow remains cheerfully confident of its pull factor—Selfridges, a big upmarket London-based store whose space-age metallic outlet in Birmingham put that city's shopping on the map last year, plans to open in Glasgow by 2007.

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Bagehot

Billy Bragg's modest proposal

Mar 11th 2004
From The Economist print edition

The government is in a jam over constitutional reform. It needs a way out, fast

SO DEEP is the mess the government has got itself into over constitutional reform that it may be about to turn to Billy Bragg, a left-wing singer-songwriter, for the answer to its problems. This is not to denigrate Mr Bragg. Known variously as the Bard of Barking and Britain's Woody Guthrie, he made his name in the 1980s playing concerts in support of various lost causes, such as Arthur Scargill's striking miners, and has an unlikely passion for constitutional reform. He has, for years, been plugging a plan to reform the House of Lords that, against all odds, is being taken seriously in high places.

More of the Bragg proposal later. The reason the government just might embrace it is that it has no viable plan of its own for reforming the House of Lords. Last year the House of Commons, presented with a cornucopia of options from a wholly-elected to a wholly-appointed second chamber, farcically failed to back any of them. This week, things went dramatically worse, and the government needs to find a way out of the jam it is in.

The immediate cause of the government's embarrassment is the House of Lords' rejection on March 8th of its proposals to abolish the centuries-old office of Lord Chancellor and set up a Supreme Court with judges chosen by an independent appointments commission. But these broadly sensible measures are in jeopardy largely because the government has managed to convince just about everybody that on such big and important questions, it plays fast and loose.

The way in which the judicial reforms were announced is a case in point: after not so much as a mention in Labour's 2001 manifesto, nor any attempt to explain why they might be necessary, they were jumbled up with one of the most cackhanded cabinet reshuffles in living memory. There were mitigating circumstances. Tony Blair was exhausted and distracted by the Iraq war. And the high-handed refusal of Lord Irvine, Lord Chancellor for Labour's first six years in office, to contemplate his own abolition hardly helped. But the impression, amplified by Lord Irvine's replacement with Lord Falconer, Mr Blair's sometime flatmate, was of arrogance and a lack of seriousness.

Still, this might not have mattered too much, but for the way Mr Blair had behaved over the House of Lords. The government's manifesto at the last election committed it to creating a “more representative and democratic” second chamber. To most people, including two very important audiences—Labour MPs and the remaining 92 hereditary peers—that meant a largely elected second chamber.

The hereditaries believed that the deal they had struck with the government in 1999 to go quietly was based on just such a promise. The great majority of Labour MPs supported a large directly-elected element; only a few unrepentant unicameralists held out against them. Thus in 2002, when the government produced a white paper proposing that just 20% of the new chamber should be elected, few were impressed. Robin Cook, the leader of the Commons at the time, observed before last year's vote: “We need to remind ourselves that the problem was not that the white paper was seen to offer a dangerously high level of elected members.”

Mr Blair begs to differ. He “personally” now favours a wholly appointed second chamber: any form of “hybridity” (mixing appointees with elected members) would be unstable, while a wholly-elected house would inevitably threaten the “primacy” of the Commons. Mr Blair's objections are not absurd, but they are extreme. Next week, unless “drafting difficulties” continue to beset it, the government will finally publish a bill outlining the next stage of Lords reform that will reflect Mr Blair's views, confining itself to the ejection of the last hereditaries and the establishment of a new appointments commission.

Mutinous dogs

The consequences are lamentable. The House of Lords is in a state of open insurrection, cleverly fomented by the Tories' leader in the Lords, Lord Strathclyde. Because the government has broken its promises to them, many peers feel released from normal constitutional discipline. An alliance of the disillusioned and the about-to-be dispossessed is ready to ambush government legislation whenever the opportunity arises. And while Labour MPs will shed no tears over the hereditaries' extinction, many will have deep misgivings about voting, in effect, for an all-appointed chamber in defiance of both their election manifesto and public opinion.

To save itself, the government must show that next week's bill is not, as Mr Blair has indicated, the final stage of Lords reform. Above all, it has to demonstrate that it wants to end up somewhere that other people might wish to go. Which brings us back to Billy Bragg. Mr Bragg's plan is for seats in the second chamber to be allocated in proportion to the votes cast in a general election. Each vote would, in effect, be used twice—first, as now, to elect an MP, and second, under the new scheme, to elect representatives from regionally based lists drawn up by the political parties.

The closed lists are deeply unattractive, but on most other counts this could be the basis of a workable compromise that would give the second chamber much-needed legitimacy, while explicitly recognising it as a component of Parliament rather than a separate entity. The scheme has supporters among Mr Blair's advisers. Peter Hain, the leader of the Commons, is said to be an enthusiast. Lord Falconer has also shown interest and had a meeting with Mr Bragg last month.

Mr Bragg's plan is modest, but that is also its strength. The best doesn't have to be the enemy of the fairly good, but when it comes to reforming the House of Lords, that it is how it has usually been.

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Energy and the environment

Mar 13th 2004
From Economist.com

A discussion with Vijay Vaitheeswaran, energy and environment correspondent for *The Economist*

“The needlessly inefficient and dirty ways we use energy are the greatest ways that we foul the natural environment...It has gotten to a point where it's affecting energy security as well.”

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MONITOR

Robots, start your engines

Mar 11th 2004
From The Economist print edition

Innovation: Could a robot race funded by a military-research organisation help to advance the development of autonomous fighting vehicles?

AMONG government organisations, America's Defence Advanced Research Projects Agency (DARPA) has always been somewhat unusual. As the research arm of the Department of Defence, it is akin to a high-stakes venture capitalist, gambling large sums of money (its estimated 2004 budget is $3 billion) on risky technologies that will probably fail, but could pay off in a big way. It has had some stupendous successes, such as the internet, the Saturn rocket and micro-electro-mechanical systems (tiny machines that work at the scale of a human cell). There have also been some resounding duds, such as the Total Information Awareness project, a Big Brotherish plan to spot terrorists by combing through databases of personal information, which was swiftly abandoned.

But what is arguably DARPA's most outlandish scheme yet will start rolling on March 13th, when a gaggle of strange-looking vehicles will line up in Barstow, California to make a wild run across 250 miles of scrub and desert. They will be heading, fittingly, towards Las Vegas, where gambling and high stakes are as common as hotel-buffet specials. DARPA calls this race the Grand Challenge. What makes the race so grand, and so much of a challenge? The lack of humans.

Not a single person is permitted to be at the wheel (or remote control) of any of the racing contraptions. Each machine in the contest must reach the finish line unaided, within ten hours, or die trying. The first vehicle to cross the finish line within the allotted time will win its human creators a cool $1m—respectable winnings even in the luminescent, desert-bound gambling capital of the world.

The Grand Challenge is creative even by DARPA's standards. Normally, the agency takes its multibillion-dollar annual budget and allocates it to defence contractors, academic institutions and individual scientists who bring ideas to the agency or answer a request for proposals. As a result, those who usually get to play with DARPA money constitute a relatively small club. But that changed in 2000 when DARPA's congressional paymasters decided that, in addition to the normal procurement process for developing technological breakthroughs, it might make sense to devise special prizes to enable DARPA to reach out to a range of researchers wider than the usual suspects.

DARPA embraced the idea and quickly began to explore technologies that might be prize-worthy. After much discussion, Anthony Tether, DARPA's director, decided in 2002 that the first DARPA prize should

challenge researchers to solve the stubborn problem of building land vehicles that navigate and drive themselves.

There were good reasons to do this. For one thing, Congress has decreed that by 2015, one-third of America's combat ground-vehicles must be autonomous. Furthermore, engineers and scientists have spent years, and millions of dollars, grappling with this problem without success. Driving through rough, unpredictable terrain requires machines with sensors and computational capabilities that no one has been able to devise. So DARPA's staff worked out the format for the competition, the prize money was put on the table and the Grand Challenge was born. “By having this race and awarding a prize of this size, we will bring out the people from the garages around the country and stimulate interest in this important field,” Dr Tether said when he announced the prize.

That was the idea, at least: to fire up the enthusiasts, geeks and robot evangelists huddled away in the American hinterlands, and give them a shot at applying their collective genius to problems normally left to corporate giants such as Lockheed, General Dynamics and Boeing. But DARPA was far from certain that the citizen inventors were actually out there. “We would have been happy to field four or five vehicles in the race,” says Jan Walker, a DARPA spokeswoman.

Enthusiasm, however, was not a problem. By early 2003, 106 teams had emerged from the ranks of university students, robot clubs and off-road-vehicle enthusiasts. Of these, 86 presented scientific papers containing the detailed technical specifications DARPA required, and 19 were accepted to participate in a four-day “qualification inspection and demonstration” (QID) to be held five days before the race. Another 26 entrants were judged “possibly acceptable”. To quell grumbling among these teams, DARPA offered each one a visit before making a final decision. This offer was accepted by 19 teams, six of which made the cut. However, says Ms Walker, any or all of the teams could be wiped out in the QID.

Teams of every stripe have been formed, from Alaska to Lafayette, Louisiana. One group from Palos Verdes, California, consists mostly of high-school students, but is not to be underestimated, because many of the students' parents work in the aerospace industry. Another group, Team Phantasm, is based in St Louis and consists of an inveterate tinkerer and a semi-retired computer programmer who have big plans but shallow pockets. Despite meagre resources, the duo have devised a creative flower-petal design that will right their vehicle if it flips over during the race, in much the same way that an insect gets back on its feet when turned over.

Insiders suspect that three teams—from the California Institute of Technology, Carnegie Mellon University and Ohio State University (funded largely by Oshkosh Truck Corporation, a truck-maker)—have the best chance of robotic victory. But the leader of the Carnegie Mellon team, William “Red” Whittaker, a leading field-robotics expert, insists he is taking nothing for granted. “I think it would be presumptuous and pretentious to say that anyone would have better than a 50-50 chance to win,” he says. There are too many variables, and “it's hard to appreciate what these races can do to the machinery.”

Even if the delicate digital hardware running these machines keeps going, and even if they are the smartest roving robots this side of Mars, navigating through the scrub, dust and rock of the Mojave desert represents a complex challenge. The vehicles will use digital cameras, radar and sonar, married with sophisticated home-grown software, to pick and ping their way through the desert. Two hours before the race begins, DARPA will provide the racers with a CD-ROM containing the locations of up to 1,000 waypoints to help teams map the course. But there will still be plenty of challenges. The Mojave is filled with cactus plants, boulders, ravines and ruts. “The vehicles can be repaired and refuelled,” Dr Whittaker says with a grin, “as long as they do it themselves.”

Who will win? Probably no one this time around, although the agency is more optimistic than it was a year ago that one of the teams might manage to claim the prize, according to Ms Walker. But even without an outright winner, there may be rewards of other kinds for those who compete. There are plenty of people in industry and the military who want to solve the autonomous-vehicle problem, says Ms Walker, and they will be watching the race closely.

Besides, says Dr Whittaker, the race is not really about the money. It is about doing something that's never been done before. “In the end, the best technology will win out, but this is really about the triumph of the human spirit,” he says. Which is somewhat ironic, when you consider that the race is for robots only.

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MONITOR

Drivers want

Mar 11th 2004
From The Economist print edition

Motoring: It is already possible to build driverless cars, trucks and buses. But practical problems and safety concerns mean they may never be allowed on the roads

THE teams competing in DARPA's Grand Challenge (see article) have it easy. The driverless vehicles racing off-road in the Mojave desert merely have to avoid boulders, dunes and the occasional cactus. That is nothing compared with the hazards of the open road. Put those same autonomous vehicles on Interstate 15—the busy road that links Los Angeles and Las Vegas—and they would also have to contend with bleary-eyed weekenders, huge trucks and octogenarians puttering along in mobile homes. Even so, engineers and scientists at a handful of academic and industrial research centres are valiantly grappling with the problem of designing autonomous passenger vehicles, buses and trucks. They imagine a future in which convoys of cars would communicate with each other and with roadside sensors to navigate congested freeways, ensure smooth traffic flow and virtually eliminate accidents.

The first fleet of autonomous cars emerged from the Automated Highway System (AHS) programme funded by America's transport department in the 1990s. After spending $14m, AHS researchers showed off their handiwork in 1997. They implanted 92,000 guidance magnets along a closed seven-mile stretch of motorway near San Diego, California and then released more than a dozen vehicles on to the road. But while the cars performed flawlessly, the programme was cancelled in 1998.

The development of autonomous vehicles has not skidded to a halt, however. In some respects, the technology is quietly sneaking into cars already. Carmakers are starting to incorporate radar-based sensors, micro-cameras and intelligent cruise-control systems—all of which were once limited to research vehicles—into their luxury models. As such equipment becomes more widespread, it could make retrofitting cars for autonomous operation far cheaper and easier.

The technology has also migrated into “group” transit systems. These are small-scale automated transports designed as affordable alternatives to light-rail networks, since they run on cheap roads rather than costly rails. FROG Navigation Systems of Utrecht in the Netherlands, for example, makes an autonomous control system that can be integrated into just about any vehicle. FROG—an acronym for “free ranging on grid”—uses magnets embedded in the road as reference points. Front-mounted radar scans for obstacles, triggering the brakes if needed. It is elegant and simple, and it works: FROG's ParkShuttle whisks passengers from car parks at Amsterdam's Schiphol airport to the terminal building. Even more impressive is the CyberCab, a driverless taxi that can carry riders to designated locations at the press of a button.

Autonomous vehicle technology is also attracting interest from the trucking industry which is especially intrigued by the idea of “platooning”. Commercial trucks often travel along the same regular routes. As a cost-cutting measure, platooning would allow haulage firms to arrange trucks in tight convoys and eliminate drivers in all but the lead vehicle. Braking, gear-shifting and steering commands in the lead truck would be beamed via a wireless connection—called an electronic tow-bar—to the trailing vehicles. The result would be a serpent-like conga-line rumbling down the highway. Chauffeur, a European joint-venture funded by DaimlerChrysler, Iveco, Bosch and others, has demonstrated the technique on Iveco's proving grounds in Balocco, Italy.

But truck platoons are not going to appear on public roads any time soon, reckons Karl Hedrick, an engineer at the University of California at Berkeley. He spent several years developing AHS technologies in the mid-1990s and points out that it is a wary public—rather than inadequate technology—that is ultimately hindering the widespread introduction of autonomous vehicles. Chauffeur's test runs went off without a hitch. But who wants to share the road with an army of 40-tonne driverless lorries?

A more realistic approach for the convoys, suggests Dr Hedrick, would be to designate special platooning lanes, separated by fixed barriers. Then, as drivers become comfortable with the technology and see that it is safe, they might be willing to consider platooning in their own cars. But there is still the problem of managing the formation and dispersal of platoons as cars join and leave, notes Dr Hedrick. If one car needs to refuel, it seems silly for the entire platoon to stop.

Platoons might be safer than individual cars and allow roads to be used more efficiently, but they require drivers to give up their autonomy. For many drivers, that may prove too high a price. In America, in particular, the open road is associated with freedom. A dozen cars coupled into a half-mile-long motorcade, in contrast, sounds an awful lot like a train.

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MONITOR

Off with the pith helmets

Mar 11th 2004
From The Economist print edition

Management: The use of anthropologists in technology firms, once a novelty, has now become commonplace. What changed?

NO ONE asks to see Steve Barnett's pith helmet anymore, which he views as a sign that the natives are now comfortable with his presence. Indeed, they appear to accept Dr Barnett, a pioneering business anthropologist, as one of their own—something that now holds true for corporate anthropologists in general. It was certainly not the case in 1979, the year Dr Barnett left academia to set up as an anthropological marketing-consultant. It was still not true in the late 1980s, when Xerox asked one of its resident anthropologists, Jeanette Blomberg, to don a pith helmet for a corporate photo.

But corporate anthropology is now mainstream, particularly among technology firms. Indeed, when he was informed that IBM Research had hired Ms Blomberg as its first anthropologist in December 2002, Paul Saffo of the Institute for the Future exclaimed, “Just now? How embarrassing.” To be fair, Ms Blomberg signed on to do anthropological research into services, a new tack for an industry traditionally focused on products. But Dr Saffo's point is that anthropologists are now regarded as a necessity at such firms.

The use of anthropological techniques in industry goes back to the 1920s, when a group of researchers, including Lloyd Warner of Harvard University, conducted several pioneering experiments at a factory in Cicero, Illinois, examining the impact of pay, working conditions and other incentives on productivity. But the field then fell largely dormant until Dr Barnett and his colleague Lucy Suchman were asked by Xerox to provide an anthropological perspective on product design. This was an unusual step, because computer scientists in particular tend to dismiss social science as vague, qualitative hand-waving based on interviews—the antithesis of computers' predictable determinism. “We suggest behaviours and trends that often get dismissed as being anecdotal,” says Genevieve Bell, an anthropologist who has worked at Intel, the world's largest chipmaker, since 1998. “I routinely have people here who look at me like I have three heads.”

But now the computer industry needs the advice of anthropologists more than ever before, argues Marietta Baba, a social scientist at Michigan State University and the creator of the first business-anthropology course in America, at her former employer, Wayne State University. As computers have gone from being specialised tools operated by men in white coats to part of the fabric of everyday life, hardware and software designers can no longer assume that their customers are just like them. “There was an astounding lack of attention paid to what people would use technology for, and what they needed,” says Dr Saffo.

Ferocious competition and increasingly saturated markets now mean that computer makers, like makers of other mass-produced consumer goods, need to understand their customers and design products for specific markets. The days of “one size fits all” are long gone. Another factor, notes Rick Rashid, the head of Microsoft Research, is that the internet has made computers into social tools. It seems obvious now, he says, but “a few years ago people would ignore the social implications of computing.”

All of this means business anthropologists are no longer detached, pith-helmeted observers, but are getting involved in shaping corporate strategy. Dr Bell, for example, recently completed a two-year tour of six Asian countries, conducting field research about attitudes to technology. Her aim, in part, was to debunk the theory, espoused by her colleagues at Intel, that all markets would react in the same way to PC technology. It is not yet clear what it means to Intel's long-term strategy that, in parts of southern China, it is customary to take your mobile phone to a local Buddhist monk for blessing. But it is clear that people who live in tiny dwellings with less-than-reliable electrical supplies are unlikely to have much enthusiasm for large computers with power-hungry processing chips.

PC-makers still have a long way to go to match the marketing prowess of most consumer-goods firms. That is not surprising, for PCs have only recently become consumer goods. But there are signs of progress. Dr Saffo mischievously notes that technology firms once shared with Colombian drug cartels the dubious distinction of marketing to “users”. Now they talk of customers instead.

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MONITOR

Beyond the digital divide

Mar 11th 2004
From The Economist print edition

Development: Amid much worthy talk of "bridging the digital divide", technology firms have realised that fostering the adoption of information technology in the developing world would not just benefit locals, but is in vendors' best interests as well

AFP

Aggregated buying power in action

THE gleaming Indian headquarters of Hewlett-Packard, an American computing giant, are testament to India's technology-led boom. The glass-panelled tower, located on a busy Bangalore thoroughfare, swarms with a new breed of well-heeled urban professionals. But inside the building, in a warren of cubicles on the second floor, a rather different customer is being targeted. Engineers and programmers at HP Labs, the company's research arm, are working on low-cost devices for the three-quarters of Indians who still live in the countryside. In one room, a cheap e-mail device that allows messages to be sent in local languages is on display; in another sits a tablet-shaped PC that lets users fill out government forms in Indian scripts.

These technologies are part of HP's ambitious plans to sell to the 4 billion poorest people at the bottom of the global economic pyramid. In addition to work being done at the HP Labs, the company has also invested resources in its "e-inclusion" initiative, a project designed to set up "Digital Villages" and "i-communities" around the world—the former are philanthropic projects, the latter strategic market investments. Several centres—in India, South Africa, Ghana and Brazil—have already been established.

All of this activity could easily be mistaken for yet another philanthropic effort to bridge the "digital divide" between rich and poor. But that is only part of the story. Anand Tawker, the head of HP's e-inclusion efforts in Asia, speaks of a "blended strategy" that creates social benefits at the same time as boosting HP's brand and sales. "In the process of creating social value, there is also a profitable return to HP," he says. "Doing good and doing well are not mutually exclusive."

HP is somewhat ahead of the curve, but it is not alone. Companies around the world are now busy developing low-cost devices and innovative business models to reach the world's poor. Intel, the world's largest chipmaker, is pushing cheap wireless-data systems as the best way to extend connectivity to rural areas. Vodacom, South Africa's largest mobile operator, has set up "phone shops" where rural entrepreneurs can buy and resell airtime. And the Indian Institute of Technology (IIT) in Chennai recently unveiled a stripped-down cash-dispenser that it plans to take to the masses in partnership with private-sector banks.

Of course, the idea that the poor constitute an untapped market is hardly new. Hindustan Lever, a

subsidiary of Unilever, pioneered the idea years ago, marketing its shampoos and detergents in single-use sachets rather than larger (and more expensive) bottles. But the increasing ubiquity—and falling cost—of digital networks has heightened interest in these markets for at least two reasons. First, such networks increase information transparency, allowing, for instance, farmers or fishermen to sell their produce to the highest bidder, rather than just to the nearest market. This in turn creates new markets and expands existing ones. Second, dispersed electronic databases can aggregate demand, opening up low-margin markets that depend on high volumes for their viability.

In a celebrated article published in the *Harvard Business Review* in 2002, C. K. Prahalad of the University of Michigan and Allen Hammond of the World Resources Institute, an environmental think-tank, pointed out that the collective buying power of the poor in Rio de Janeiro is $1.2 billion. Ashok Jhunjhunwala of IIT-Chennai, who has been instrumental in bringing several technologies to rural markets, points out that there are 600,000 villages in India alone. “Give me profit margins of just one rupee, and I'll be happy,” he says.

While such numbers are indeed striking, and heartening to would-be rural entrepreneurs, the challenge lies in the implementation. Mike Best of the Massachusetts Institute of Technology, who has worked in rural markets in Africa and Asia, points out that many developing countries (he cites Ghana as an example) lack the requisite connectivity. In addition, aggregated demand in, say, Madagascar, with a population of 17m, is unlikely to yield the same economies of scale as in India. And with its multitude of languages and cultures, even India poses difficulties.

Some of the difficulties may have technical solutions. To deal with the problem of multiple languages, HP is devising character-recognition systems capable of recognising a variety of scripts. The engineers at IIT-Chennai are implementing a fingerprint-recognition system in their cash dispensersthat would save the (often illiterate) villagers from having to remember a personal identification number.

But perhaps the best reason to be optimistic is that the companies in question are driven by a powerful motivator that is lacking in donor-led rural programmes: profit. Mr Tawker, for example, happily characterises HP's efforts as a long-term strategic response to saturation and slower growth in the company's traditional markets. Now, the technologists just have to devise the technological equivalent of shampoo sachets.

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MONITOR

Cows go wireless

Mar 11th 2004
From The Economist print edition

Wireless technology: The use of electronic tags to track cattle and monitor their health is likely to accelerate following America's first case of mad-cow disease

THE discovery in December of the first cow in America to be infected with bovine spongiform encephalopathy (BSE), a fatal neuro-degenerative sickness popularly known as mad-cow disease, sent shock waves through the country's $27-billion cattle industry, the world's largest beef producer. Officials were quick to point out that the infected cow had been imported from Alberta, in Canada. Even so, the United States Department of Agriculture (USDA) immediately banned the sale of crippled or “downer” cattle for human consumption. The USDA also accelerated its Animal Identification Plan, a nationwide identity scheme designed to enable speedy responses to disease outbreaks by tracking the movement of cattle and other animals. Such tracking, it is hoped, will ensure that the source of an outbreak and any other contaminated animals can be quickly pinpointed.

For diseases such as BSE this is important, because a single animal is typically moved about five times in its lifetime. But for more virulent diseases such as foot-and-mouth disease (FMD), an even faster and smarter approach will be needed. Researchers at Kansas State University are about to begin field trials of just such a system: a “cattle telemedicine tracking system” that monitors the health of animals while they are grazing, and raises the alarm at the first sign of illness. Sensors will monitor heart rate, temperature, oxygen-saturation level and movement. Bluetooth wireless technology will be used to relay the resulting data to a nearby computer via transceivers on food and water troughs, which also register when the animals eat and drink.

The ultimate aim is to establish a nationwide monitoring network similar to those being developed to detect human-disease outbreaks, says Dan Andresen, the computer scientist who is building the communications infrastructure. If an animal becomes ill, regional and national monitoring stations and the local vet will be alerted, as well as the farmer.

In preliminary tests the researchers have already proved the feasibility of using sensors to monitor animal health. The next stage, funded by $900,000 from America's National Science Foundation, will test the wireless communications infrastructure and determine the most suitable sensors. Implanting sensors under the skin, notes Howard Erikson, an animal physiologist at Kansas State University, has to be done in a way that doesn't compromise the safety of the meat.

Initially, the system will simply raise a flag when an animal's health dips below a certain level. But the long-term aim is to construct computational models of specific diseases based on the data being monitored, says Mark Spire, who is the president of the American Association of Bovine Practitioners and a member of the Kansas State team.

Current methods for detecting disease in livestock are slow and open to abuse, because they rely upon farmers or vets reporting sick animals, says Marcus Doherr of the Institute of Animal Neurology at the University of Bern in Switzerland. A less subjective, automated approach would be desirable, he says. But timing is crucial. The system would need to detect outbreaks early enough for action to be taken to limit the spread of the disease. Dr Spire says it should be possible to detect many diseases within 12 hours of an animal becoming ill. This is fast enough to detect the early viral phase of FMD, for example—which is, crucially, before the disease becomes most contagious.

The cost of “unwiring” each cow is initially likely to exceed $100, but is soon expected to fall well below $90, the average cost of treating a sick animal. Moreover, once the infrastructure has proved successful, further trials will be carried out to establish how many cows in a herd need to be monitored to give a reliable indication of the herd's overall state of health.

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MONITOR

Return of the homebrew coder

Mar 11th 2004
From The Economist print edition

Software: Most modern software is written by huge teams of programmers. But there is still room for homebrew coders, at least in some unusual niches

BEFORE Henry Ford unleashed the practice of mass production on the world, every little town had a few dozen artisans who made the lives of citizens easier. A cobbler made the shoes, a tailor sewed suits and a carpenter built furniture. Mass production sounded the death knell for many specialist craft jobs, and the rise of computerised supply chains finished off most of the rest. But now, a century later, the trend is reversing itself. The new craftsmen do not stitch leather, cut cloth or saw wood: instead, they write software.

This is because, as digital gizmos proliferate, consumers are running into some niggling problems. How can you synchronise a Sony Ericsson smartphone with a Macintosh computer running Microsoft's Entourage software? How do you send instant messages from your PocketPC or Palm handheld? How do you maintain a weblog quickly and easily? Such difficulties are typically faced by just a few thousand people with specific and unusual requirements—too few to merit the attention of the big computer firms, but enough to provide opportunities for a growing band of homebrew coders who set out to develop niche products.

In many cases these programmers are making a decent living in the process, thanks to the availability of high-speed internet connections, cheap web-hosting services and online-payment systems such as PayPal and Kagi—all of which make it quick and easy to distribute software and collect money from customers. The trend is also a response to the sorry state of the technology industry, following the bursting of the dotcom bubble. Where they could once command salaries of $100,000, programmers now worry about their jobs disappearing to India. So instead of waiting for things to improve, some have decided to strike out on their own.

Brent Simmons is one such programmer. With the help of his wife, he runs Ranchero Software from his garage in Seattle. They make a clever piece of software called NetNewsWire, which runs on the Mac OS X operating system and makes it easy to read news and then post comments on to a weblog. “I like being able to design and implement software and have the final say,” says Mr Simmons. “It's a higher level of creativity than working on someone else's software. I get to refine and market my own ideas.” At $40 each, Mr Simmons needs to sell 2,000 copies of his program each year to earn what he would be paid as an employee elsewhere.

Jonas Salling of Salling Software in Stockholm, meanwhile, has attracted a loyal following for his handy software utilities. One allows data from Microsoft's Entourage personal-information manager for Macintosh computers to be transferred to Sony Ericsson smartphones. The other allows such phones, and certain Palm handhelds, to be used as wireless remote-controls via a Bluetooth link. So you can, for example, advance slides in a presentation by clicking on your phone's keypad. The number of people who actually want to do this is quite small, but they want to do it enough to pay Mr Salling $10 for his software, which has won several awards.

Even more successful are Gaurav Banga and Saurabh Aggarwbi, based in Sunnyvale, California. They sell VeriChat, a nifty piece of software that allows people to send and receive instant messages on smartphones, or on PocketPC and Palm handheld computers. VeriChat is sold on a subscription basis, and brings in $20 per user per year, collected via PayPal. The company's sales are expected to reach $1m this year.

Another homebrew coder is Nick Bradbury, who lives in Franklin, Tennessee. He wrote one of the first web-publishing tools, called HomeSite, and sold it to Allaire, which is now part of Macromedia. Then he

started Bradbury Software, which sells a web-page editor called TopStyle and a news-reading program called FeedDemon. Self-employment, he notes, has more than just financial benefits. “I put in more hours, but those hours are very flexible, which in my case means I can spend a great deal of time with my two kids,” he says. And he finds it very rewarding to know that his software is making people's lives a little easier—“something I rarely, if ever, experienced while working in the corporate world.”

The phenomenon of the homebrew coder is not new, of course. For two decades, programmers have distributed their wares as “shareware”, initially through dial-up bulletin boards or via disks given away with computer magazines, and later via the internet. People can try a piece of software free of charge, and then send a cheque to its creator if they want to continue using it. This often entitles them to a registration code that unlocks extra features. But online payment services such as PayPal and Kagi have simplified and sped up the payment process, making the shareware model far more attractive for programmers. “Software developers are essentially cutting out the traditional distribution channels, which are not efficient,” says Kee Nethery, the founder of Kagi, who has noticed a growing number of independent software developers collecting money using his firm's service.

Mr Bradbury also points to improvements in development tools, which make it easier for lone programmers to build complex software, and to a growing number of niche markets, as programmable devices such as smartphones proliferate. While new opportunities abound, however, this world of independents is an unforgiving meritocracy. For homebrew coders, the fact that their fortunes depend directly on the quality of their products is both the risk and the reward.

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MONITOR

The car that screens your calls

Mar 11th 2004
From The Economist print edition

Motoring: In-car systems that monitor driver activity, and then screen out unwelcome technological distractions such as phone calls, could improve road safety

DRIVING while holding a mobile phone has already been outlawed in many parts of the world, but there are plenty of other distractions to worry about in a modern car. Navigation systems, traffic-information alerts and in-car entertainment systems mean that drivers are increasingly being bombarded with digital distractions that threaten their safety and that of others.

Recognising the potential hazards of this information overload, not to mention the possible threat of legislators banning more than just phones, carmakers are taking matters into their own hands. Their technological solution is to add yet another device to the dashboard, to take away from the driver the responsibility for deciding when it is too dangerous to use a gadget. The idea is to monitor the driver's activity via the steering wheel, pedals and indicators (turn signals), and assess the complexity of the current manoeuvre using a set of predefined rules. If this complexity exceeds a certain threshold, the system filters out unnecessary distractions, diverting phone calls to voice-mail, or silencing traffic updates.

One such system, called Comunicar, is being developed by a consortium that includes DaimlerChrysler, Volvo and other carmakers and is funded by the European Commission. It even has an adaptive dashboard display that filters out visual as well as audible distractions.

Another experimental system, developed by BMW and Robert Bosch, a German engineering and electronics firm, uses satellite positioning to compare the location of the car with a built-in database of road junctions. This requires every road junction to have been previously assessed and rated according to how much attention it requires from the driver. But this information can then be factored into the driver's workload, to give an even more accurate reading.

The system also takes into account the prevailing traffic conditions, says Walter Piechulla of the University of Regensburg, the system's architect. It does this by co-opting built-in collision avoidance sensors to make a crude assessment of how busy the road is, by measuring the distance to nearby cars. And although the system only diverts phone calls at the moment, it could easily be extended to text messages, e-mails and navigation or traffic alerts, says Dr Piechulla.

Even just diverting incoming phone calls is a step forward, says Paul Green of the University of Michigan Transport Research Institute in Ann Arbor. Some research, he says, suggests that just the sound of the phone ringing can be more dangerous than talking or dialing while driving. Answering a ringing phone can become the driver's top priority, pushing driving into second place.

Both systems have been road tested and appear to reduce driver workload. The Comunicar system has now entered a pre-commercial phase and could become a product as early as 2006, says Luisa Andreone of Fiat's research centre in Turin. But Dr Green, who is evaluating the effectiveness of such systems for America's transport department, is not convinced the technology is ready. The idea is laudable, he says, but it is difficult to tell if these systems will really work.

The problem is that assessing the mental workload of a driver is far from straightforward. Tuning a car radio, for example, used to be regarded as the worst acceptable distraction for a driver. But now that the old-fashioned tuning dials have been replaced with fiddly buttons, even this task has become more distracting, says Dr Green. The car of the future, says Dr Andreone, could have all kinds of new information services, such as interactive parking-space locators and internet-based directory assistance. The trick will be to ensure that these features do not come at the expense of safety.

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Pressing pause, nature's way

Mar 11th 2004
From The Economist print edition

Biotechnology: A trick borrowed from an obscure bacterium could provide a new way to preserve human tissue without refrigeration

AT FIRST glance, the cyanobacterium *Nostoc commune*—which looks a bit like dried parsley and lives in shallow depressions on limestone outcroppings—seems to eke out an uneventful existence. But its exposure to the vicissitudes of the weather has bequeathed to it an unusual characteristic that could prove very useful. *N. commune* cells excrete a substance called a glycan, made up of chain-like molecular structures which arrange themselves on the cells' surfaces in various ways, depending on how much water is present. During dry periods, the glycan assumes a lattice-like structure that immobilises the cells and protects their fragile surfaces during dehydration. This helps to preserve the cells when water is scarce—a neat trick that mammalian cells cannot match.

Not on their own, at least. But researchers at the Virginia Tech Centre for Genomics in Blacksburg, Virginia, believe that this same glycan could also be used to protect and preserve human tissue. Already, Malcolm Potts, a biochemist, and Richard Helm, an analytical chemist, have successfully used it to dry and then rehydrate mouse cells and, more importantly, human kidney cells. For three weeks, the kidney cells were preserved in a quiescent state. When the cells were rehydrated, their structure was found to be intact, which was not the case for another sample of cells dried without the glycan.

There are other ways to preserve cells, of course, such as refrigeration. The significance of the glycan experiment, however, is that the drying was done at room temperature, and the cells spent their three weeks in suspended animation sitting on an ordinary laboratory shelf. The researchers are now probing the limits of this new preservation technique. They are gradually extending the length of the preservation period, are making sure that desiccated cells remain healthy once rehydrated, and have successfully shipped desiccated cells across America. The researchers are also experimenting with other substances to see if they work better than the *N. commune* glycan.

Variations of this technique could, they suggest, be harnessed in a number of ways. The most obvious use—which Dr Potts and Dr Helm are now pursuing through AnhydroCyte, a biotech start-up—is the ability to store and distribute biological materials such as cells, enzymes and other biomedical products without the need for refrigeration. An even bolder notion would be to use the *N. commune* glycan (or some equivalent substance from other cells, if one is eventually determined to be preferable) to stabilise blood for transfusions.

Preserved cells might also form the basis for a new kind of biosensor. Dried nerve cells, for example, could be hooked up to an electronic device called a fluorometer, which could detect the presence of nerve gases or other pathogens by measuring erratic cell activity (since the cells are not entirely dormant, even in their desiccated state).

The refinements needed to preserve blood or manufacture biosensors could take several years to develop, says Dr Potts. Beyond that, the technique could pave the way for the long-term preservation of human tissue, or even entire organs. “Can we dry a cell for five years and then wake it up again?” Dr Potts asks. Five years ago, he says, preserving a cell for five hours seemed unattainable. “But here we have revived cells after more than two months in a quiescent state, so now I think nothing is impossible.”

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MONITOR

Heart of glass

Mar 11th 2004
From The Economist print edition

Avionics: Computerised instrument panels, already widely used in military aircraft and large passenger jets, are coming to small planes too

A REVOLUTION is under way in aviation, though it is easily overlooked. For it is remoulding not the outward appearance of aircraft, but their innards, as two technologies proliferate: cheap, fast and reliable computers, and Global Positioning System (GPS) receivers. A handful of companies are combining the two to get rid of the vast arrays of dials that crowd aeroplane cockpits and replace them with a pair of sleek, compact computer screens.

While this has been accomplished over the last few years in military aircraft and large airliners, such “glass cockpit” technology is only now filtering down into the smaller aircraft that constitute the vast majority of the world's flying machines. One of the first such systems, built by a company called Avidyne, based in Lincoln, Massachusetts, was approved by the Federal Aviation Administration (FAA), America's aviation regulator, in February. And Cirrus, a small planemaker based in Duluth, Minnesota, has obtained FAA approval for using the Avidyne system in instrument-only flight.

Though Cirrus was one of the first makers of small-piston aeroplanes to incorporate the new technology, it is catching on. Piper, another small planemaker, based in Vero Beach, Florida, launched a plane equipped with an Avidyne system in January. And in the next few weeks, Cessna will start selling small aircraft with a glass cockpit built by Garmin, Avidyne's main competitor, based in Kansas City, Kansas.

These systems do away with the elaborate clipboards and charts normally used by pilots, and replace them with a screen which toggles through various modes. This screen also replaces the confusing green-tinted radarscopes that used to adorn cockpits by overlaying (in some configurations) weather and traffic information on the map. A friendly voice even calls out when other aircraft are nearby, warning the pilot.

A second screen displays the aircraft's altitude, airspeed and attitude (the angle the aeroplane is tilting in the three axes of roll, pitch and yaw). When flying using instruments alone, a situation in which clouds and turbulence can confound a pilot's sense of up and down, being able to take in all this information in one glance, instead of three, simplifies the pilot's task. Alan Klapmeier, the co-founder of Cirrus, notes that glass cockpits transform the safety and ease-of-use of small aircraft, and could make them accessible to many people who were previously put off flying by the daunting complexity of an aircraft's controls.

Though Avidyne and Garmin, which also makes GPS units, have the bulk of the market for glass cockpits, another company, Chelton Flight Systems, of Boise, Idaho, is the first to have certified the next generation of equipment. This involves something called synthetic vision. By drawing on large government databases, which have topographical maps for the bulk of the world, and then using GPS to determine the aeroplane's precise location, Chelton's system can display a three-dimensional rendering of the outside world that is always available, in night or day, whatever the weather.

Though the display resembles a primitive computer game in its blockiness, Dexter Turner, the president of Op Technologies, a rival firm that is developing a similar system, points out that this is quite adequate. If you are close enough to see finer-scale features on the side of a mountain, he says, it is too late.

Even so, the eventual goal, says Mr Klapmeier, is to create a far more detailed representation of the outside world. The next step is called enhanced vision, which will involve supplementing the database information with dynamic, real-world data. This will allow the virtual display to show things such as weather and other aeroplanes, further increasing the pilot's awareness when it is too foggy or dark to see outside. Flying a small aircraft may never be child's play, but it is coming closer and closer to resembling

a video game.

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MONITOR

Blogging goes to work

Mar 11th 2004
From The Economist print edition

Software: Blogging brings to mind self-absorbed teenagers posting their daily musings online. Might the technology be useful in business?

WILL blogging—the practice of maintaining an online diary, or weblog—revolutionise journalism? Do the world's bloggers really constitute a “second superpower”, the only force on earth capable of keeping America's neo-imperialist government in check? Or is the blogging craze just an example of sound and fury signifying nothing—a re-run of the late-1990s fad for personal websites, only with easier-to-use publishing software?

While bloggers—half of whom are teenagers, according to one survey—are convinced that they are changing the world, not everyone agrees. There are, whisper it, even some people beyond the insular world of the “blogosphere” who have not even heard of blogging at all. Ross Mayfield, the founder of Socialtext, a firm based in Palo Alto, California, wants to move blogging beyond its usual constituency of teenagers and wide-eyed political activists. His company is taking a novel approach, arguing that blogging might actually be useful in business.

Socialtext makes a corporate version of a wiki—a web page that can be edited by any reader (the word means “quickly” in Hawaiian). Wikis offer a middle ground between e-mail and a conventional web page, which makes them useful for collaborative projects, particularly those involving far-flung teams. Rather than maintaining multiple copies of a document and sharing ideas by e-mail, a wiki allows members of a team to pool their thoughts more easily. Wikis are not particularly new, but are now beginning to demonstrate the potential to replace other forms of groupware.

“When I first heard of wikis, I brushed it off as a weird, messy thing that was out of control and never would be useful,” says Peter Morville, head of Semantic Studios, a consultancy in Ann Arbor, Michigan. He now thinks more highly of them, having successfully used them on several projects with clients.

Socialtext takes the wiki concept and adds to it some corporate bullet-proofing. It can be used to create a conventional blog, yes, but more importantly it tracks different versions of documents, so that people working on a project can see each other's changes and go back to earlier versions. It also has administrative tools that allow wiki entries to be viewed and sorted in different ways.

Socialtext launched its product at the end of last year, and already has dozens of customers. One example is Soar Technology, a Michigan-based software firm. Jacob Crossman, an engineer at Soar, has been using the Socialtext software for a six-person project. Though there is still room for improvement, he says the software will probably become the collaborative tool of choice at his company. A use for blogging? Perhaps the teenagers are on to something after all.

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MONITOR

And the nominees are...

Mar 11th 2004
From The Economist print edition

T*he Economist*'s third annual Innovation Summit and Awards will take place in San Francisco on September 14th. The theme will be “Insights from the Frontiers of Innovation”. Speakers from industry and academia will examine how expertise in the management of innovation can be transferred from one field to another. With this in mind, we invite readers to nominate innovators who have wrought great changes over the past decade in the categories of bioscience, computing, telecoms, energy and environment, and our open-ended “no boundaries” category. This year we are also introducing a new award in the field of social and developmental innovation, to recognise individuals who have pioneered novel technologies and business practices to improve people's everyday lives. Nominations close on June 1st, and the winners will be announced at the summit in September. Please e-mail your suggestions to tqawards@economist.com

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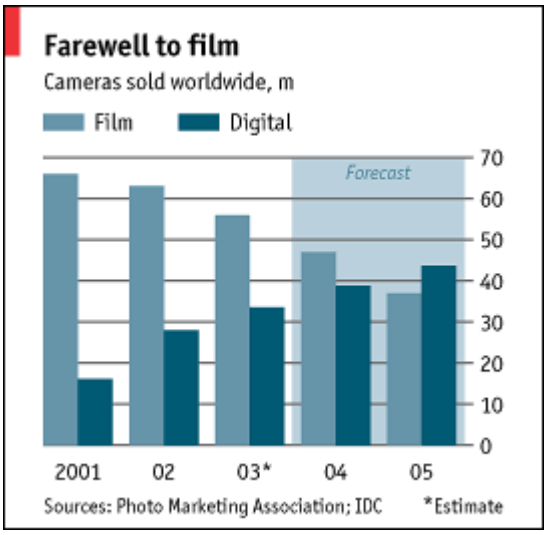
CONSUMER ELECTRONICS

Digital cameras zoom in

Mar 11th 2004
From The Economist print edition

Consumer electronics: Freed by digital technology from the constraints of film, the camera business is being transformed



THERE comes a point when consumer products using a radically different technology no longer have to prove themselves. That point has now been reached with digital cameras, sales of which are soaring: in America, they now outsell conventional film-based cameras. Globally, the cross-over will happen next year (see chart). Falling prices and better performance mean consumer digital cameras are more than a match for their film counterparts. Further up the scale, professional photographers are switching to digital in droves, since it lets them do away with the cost and delay of film processing.

As digital photography goes mainstream, the camera business is being transformed. One reason is that digital cameras have as much in common with consumer-electronics devices as they do with film-based cameras—so they are no longer the exclusive preserve of the traditional camera-makers. The switch to digital provides an opportunity for new players to enter the market. The current leaders in digital cameras, accounting for 75% of global sales, are Canon, Sony, Olympus, Nikon and Kodak. But that line-up is volatile, with competition coming not just from consumer-electronics giants, but also from PC-makers such as Hewlett-Packard, Dell and Gateway.

Meanwhile, digital technology is allowing cameras to reach into all sorts of new niches. Freed from the constraints of film, digital cameras can assume a bewildering range of new shapes and sizes (such as credit-card sized cameras that slip invisibly into a shirt pocket) and do all kinds of new tricks (such as sepia-toning a photo, or applying other special effects). New services and accessories for digital-camera users are proliferating, from high-street and online print-making services to printers for home and portable use.

And digital cameras are slowly but surely shaking off their dependence on personal computers for storage, management and printing of images. In the early days of digital photography, it was obligatory to own a PC, just as early photographers needed their own darkrooms. But high-street shops now offer to transfer images from the camera's memory card to a CD from which future prints can be ordered, and many cameras can now plug into printers directly. As such technical matters are resolved, and camera-makers jostle to get ahead of one another, the focus will switch towards targeting different customers with digital cameras that meet their particular needs.

Pixel power

The pace of change is particularly evident in two parts of the industry. The first is camera-equipped mobile handsets, around 65m of which will be sold this year worldwide, according to IDC, a market-research firm. Sales are expected to reach 125m units in 2005. This means camera-phones are already outselling film and digital cameras, and will soon outsell both put together.

So far, the sudden emergence of camera-phones, which generally take grainy, low-quality images intended for viewing on such handsets' tiny screens, has had little impact on “proper” photography. Despite mobile operators' hopes that photo-messaging—the sending of digital snaps from one phone to

another—would become as popular and lucrative as text-messaging, most people rarely use their phones' cameras. And when they do, they generally keep the images on their phones, rather than beaming them expensively across the airwaves.

But the quality of the images produced by camera-phones is fast improving. Already the most advanced models, available in Japan, have sensors capable of recording 2m pixels (two megapixels) in each image, good enough for a standard six-by-four-inch print. Autofocus, zoom and flash functions are also appearing on camera-phones. If such features become commonplace, camera-phones could turn into no-compromise, grown-up cameras. That will further intensify competition in the camera business, as handset-makers such as Nokia muscle in.

The second area to watch is the market for special cameras that cater to the needs of photography enthusiasts. Traditionally, film-camera-makers sold compact “point and shoot” cameras to the mass market, and fancier “single-lens reflex” (SLR) cameras, with interchangeable lenses, to both enthusiasts and professionals. This division persisted into the digital world. But digital SLRs were, until recently, so expensive that only professionals could afford them. So enthusiasts who wanted to go digital bought high-end digital point-and-shoot cameras (known as professional/consumer, or “prosumer” models) instead; many stuck with their film-based SLRs.

In the past few months, however, the distinction between high-end point-and-shoot cameras and digital SLRs has vanished, as the prosumer cameras have become ever more powerful. The Sony DSC-F828, for example, has an eight megapixel sensor and a seven-times optical zoom, and costs $1,200. This kind of camera, notes Chris Chute, an analyst at IDC, “gives consumers what they never had in the film world”, namely high-end features and superior picture quality, without the need to fork out for an expensive camera body and a bag full of bulky lenses. Meanwhile, the price of digital SLRs has tumbled: last year Canon was the first company to produce one, the Digital Rebel, for under $1,000. Its launch, notes Mr Chute, signalled the beginning of the end for film-based SLRs.

The old rules that used to govern the camera business, in short, have been swept aside, and the distinctions between previously separate product categories are rapidly disappearing. With the industry in flux, this is a difficult time to be a camera-maker. But it is a great time to be one of their customers.

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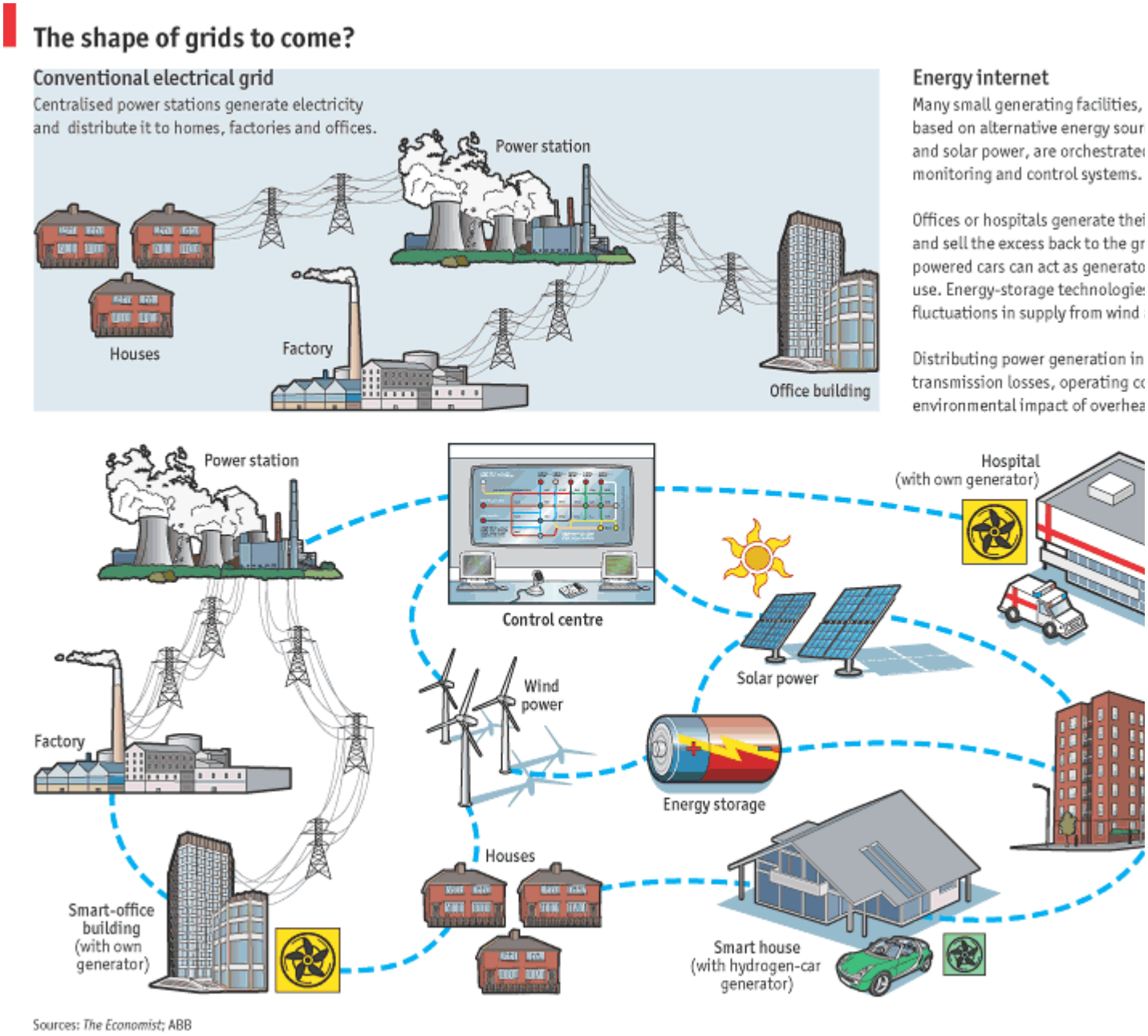
ENERGY

Building the energy internet

Mar 11th 2004
From The Economist print edition

Energy: More and bigger blackouts lie ahead, unless today's dumb electricity grid can be transformed into a smart, responsive and self-healing digital network—in short, an "energy internet"



"TREES or terrorists, the power grid will go down again!" That chilling forecast comes not from some ill-informed gloom-monger or armchair pundit, but from Robert Schainker, a leading expert on the matter. He and his colleagues at the Electric Power Research Institute (EPRI), the official research arm of America's power utilities, are convinced that the big grid failures of 2003—such as the one that plunged some 50m Americans and Canadians into darkness in August, and another a few weeks later that blacked

out all of Italy—were not flukes. Rather, they and other experts argue, they are harbingers of worse to come.

The chief reason for concern is not what the industry calls “poor vegetation management”, even though both of last year's big power cuts were precipitated by mischievous trees. It will never be possible to prevent natural forces from affecting power lines. The real test of any network's resilience is how quickly and intelligently it can handle such disruptions. Think, for example, of the internet's ability to re-route packets of data swiftly and efficiently when a network link fails.

The analogy is not lost on the energy industry. Of course, the power grid will never quite become the internet—it is impossible to packet-switch power. Even so, transforming today's centralised, dumb power grid into something closer to a smart, distributed network will be necessary to provide a reliable power supply—and to make possible innovative new energy services. Energy visionaries imagine a “self-healing” grid with real-time sensors and “plug and play” software that can allow scattered generators or energy-storage devices to attach to it. In other words, an energy internet.

Flying blind

It sounds great. But in reality, most power grids are based on 1950s technology, with sketchy communications and antiquated control systems. The investigation into last year's North American blackout revealed that during the precious minutes following the first outages in Ohio, when action might have been taken to prevent the blackout spreading, the local utility's managers had to ask the regional system operator by phone what was happening on their own wires. Meanwhile, the failure cascaded to neighbouring regions. “They simply can't see the grid!” laments Clark Gelling of the EPRI.

Even if operators had smart sensors throughout the system, they could do little to halt problems from spreading, because they lack suitable control systems. Instead, essential bits of energy infrastructure are built to shut down at the first sign of trouble, spreading blackouts and increasing their economic impact. The North American blackout, for example, cost power users around $7 billion. Engineers have to spend hours or even days restarting power plants.

The good news is that technologies are now being developed in four areas that point the way towards the smart grid of the future. First, utilities are experimenting with ways to measure the behaviour of the grid in real time. Second, they are looking for ways to use that information to control the flow of power fast enough to avoid blackouts. Third, they are upgrading their networks in order to pump more juice through the grid safely. Finally, they are looking for ways to produce and store power close to consumers, to reduce the need to send so much power down those ageing transmission lines in the first place.

First, to the eyes and ears. With the exception of some simple sensors located at a minority of substations, there is little “intelligence” embedded in today's grid. But in America's Pacific north-west, the Bonneville Power Administration (BPA), a regional utility run by the federal government, has been experimenting with a wide-area monitoring system. Carson Taylor, BPA's chief transmission expert, explains that the impetus for this experiment was a big blackout in 1996. Sensors installed throughout the network send data about local grid conditions to a central computer, 30 times a second.

Dr Taylor credits this system with preventing another big blackout in his region, and says his counterparts in America's north-east could have avoided last year's blackout if they had had such a system. He wishes his neighbours to the south, in power-starved California, who import hydroelectric power from Canada over BPA's transmission lines, would upgrade their networks too. If they did, he believes the entire western region could enjoy a more reliable power supply.

Real-time data is, of course, useless without the brains to process it and the brawn to act on it. For the brains, look to Roger Anderson and his colleagues at Columbia University and at the Texas Energy Centre. They are developing software to help grid managers make sense of all that real-time data, and even to forecast problems before they occur. They hope to use the Texas grid, which (fittingly, for the Lone Star state) stands alone from North America's eastern and western power grids, as a crucible for their reforms. ABB, a Swiss-Swedish engineering giant, has also developed brainy software that tracks grid flows several times a second and feeds the information to control systems that can respond within a minute or so. The firm claims it can make outages 100 times less likely. The real challenge is responding in real time. Today's electro-mechanical switches take tenths of seconds or longer to divert power—usually far too long to avoid a problem. But several firms have devised systems that can switch power in milliseconds. At the Marcy substation in upstate New York, the New York Power Authority and the EPRI

are experimenting with a device that can instantaneously switch power between two transmission lines—one notoriously congested, the other usually not—that bring power into New York City.

Another bit of brawn comes in the shape of devices that can act as “shock absorbers” and smooth out fluctuations in the power supply. Greg Yurek, the head of American Superconductor and a former professor at the Massachusetts Institute of Technology, argues that recent trends have increased the instability of the grid and highlighted the need for this sort of technology. In America, deregulation of the wholesale power market means ever larger quantities of power are travelling greater distances, yet investment in the grid has halved since the 1970s.

Traditionally, grid operators used banks of capacitors, which store and release energy, to act as shock absorbers for the grid. But capacitor banks tend to be very large and hard to site near customers (who love to guzzle power but complain about new power lines or hardware in their neighbourhood). American Superconductor makes smarter devices known as D-VARs that fit into portable tractor-trailers and can be parked right next to existing substations. Clever software monitors the grid and responds in a matter of milliseconds if it detects fluctuations.

The third broad area of improvement involves squeezing more juice through existing power lines. It may not be necessary to lay thousands of miles of new copper cables to tackle this problem. Because of the current lack of real-time monitoring and controls, system operators often insist that utilities run just 50% of the maximum load through their wires. That safety margin is probably prudent today. But as the grid gets smarter in various ways, EPRI officials reckon that it may be possible to squeeze perhaps a third more juice through today's wires.

And if those copper wires were replaced with something better, even more power could be piped through the grid. One alternative is a cable that uses a combination of aluminium and carbon-glass fibre composite. Researchers at CTC, a cable-maker working with the University of Southern California, think this composite cable could carry twice as much power as a conventional one. Similarly, American Superconductor has come up with superconducting cables that can carry five times as much power as ordinary wires.

Back to the future

In the long run, however, the solution surely does not lie in building ever fatter pipes to supply ever more power from central power plants to distant consumers. Amory Lovins, head of the Rocky Mountain Institute, an environmental think-tank, explains why: “the more and bigger bulk power lines you build, the more and bigger blackouts are likely.” A better answer is “micropower”—a large number of small power sources located near to end-users, rather than a small number of large sources located far away.

This sentiment is echoed by experts at America's Carnegie Mellon and Columbia universities, who have modelled the vulnerabilities (to trees or terrorists) of today's brittle power grid. Even the gurus at EPRI, which relies on funding from utilities that run big power plants, agree that moving to a distributed model, in conjunction with a smarter grid, will reduce blackouts. Look at Denmark, which gets around 20% of its power from scattered wind farms, for example. Sceptics argued that its reliance on micropower would cause more blackouts. It did not.

“The technology exists to enable a radical overhaul of the energy industry. Its effects could mirror the internet's impact on communications”

At first glance, this shift toward micropower may seem like a return to electricity's roots over a century ago. Thomas Edison's original vision was to place many small power plants close to consumers. However, a complete return to that model would be folly, for it would rob both the grid and micropower plants of the chance to sell power when the other is in distress. Rather, the grid will be transformed into a digital network capable of handling complex, multi-directional flows of power. Micropower and megapower will then work together.

ABB foresees the emergence of “microgrids” made up of all sorts of distributed generators, including fuel cells (which combine hydrogen and oxygen to produce electricity cleanly), wind and solar power. The University of California at Irvine is developing one now, as are some firms in Germany. “Virtual utilities” would then aggregate the micropower from various sources in real time—and sell it to the grid.

Energy-storage devices will be increasingly important too. Electricity, almost uniquely among commodities, cannot be stored efficiently (except as water in hydro-electric dams). That means grid

operators must match supply and demand at all times to prevent blackouts. But if energy could be widely stored on the grid in a distributed fashion, and released cheaply and efficiently when needed, it would transform the reliability and security of the grid. According to Dr Schainker, the last few years have brought dramatic advances in this area. He reckons that several energy-storage technologies now look quite promising: advanced batteries, flywheels and superconducting devices known as SMES devices. But the most intriguing storage option involves hydrogen—which can be used as a medium to store energy from many different sources.

Most of the recent hoopla surrounding hydrogen has concentrated on its role in powering fuel-cell cars. However, its most dramatic impact may well come in power generation. That is because hydrogen could radically alter the economics of intermittent sources of green power. At the moment, much wind power is wasted because the wind blows when the grid does not need, or cannot safely take, all that power. If that wasted energy were instead stored as hydrogen (produced by using the electrical power to extract hydrogen from water), it could later be converted back to electricity in a fuel cell, to be sold when needed. Geoffrey Ballard of Canada's General Hydrogen, and the former head of Ballard, a leading fuel-cell-maker, sees hydrogen and electricity as so interchangeable on the power grid of the future that he calls them “hydricity”.

Another benefit is that hydrogen could also be sold to allow passing fuel-cell-powered electric cars to refill their tanks. In time, those automobiles might themselves be plugged into the grid. Tim Vail of General Motors calculates that the power-generation capacity trapped under the hoods of the new cars sold in America each year is greater than all the country's nuclear, coal and gas power plants combined. Most cars are in use barely a tenth of the time. If even a few of them were plugged into the grid (in a car park, say), a “virtual utility” could tap their generating power, getting them to convert hydrogen into electricity and selling it on to the grid for a tidy profit during peak hours, when the grid approaches overload.

Brighter prospects?

So, given all of the environmental, economic and energy benefits of upgrading the power grid, will it really happen? Do not hold your breath. The EPRI reckons that building an energy internet could cost over $200 billion in America alone. Even so, the obstacle to progress, in America at least, is not really money. For even $200 billion is not an outrageous amount of money when spread over 20 or 30 years by an industry with revenues of over $250 billion.

The snag is politics: America's half-baked attempt at deregulation has drained the industry of all incentives for grid investment. America's power industry reinvests less than 1% of its turnover in research and development—less than any other big industry. While Britain is a notable exception, the picture is not much better in many parts of the world. The technology exists to enable a radical overhaul of the way in which energy is generated, distributed and consumed—an overhaul whose impact on the energy industry could match the internet's impact on communications. But unless regulators restore the economic incentives for investment, the future looks bleak. Time to stock up on candles and torches.

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ROBOTICS

The gentle rise of the machines

Mar 11th 2004
From The Economist print edition

Robotics: The science-fiction dream that robots would one day become a part of everyday life was absurd. Or was it?

Reuters

Still taking baby steps

WHO would have thought that a Frisbee-shaped contraption that extracts dust from carpets would be the state of the art in household robots at the dawn of the 21st century? In the past year, Roomba, a circular automatic vacuum cleaner made by a firm called iRobot, has swept up millions of dollars from over 200,000 buyers—and was a must-have at Christmas, among geeks at least. Rival firms such as Electrolux and Karcher sell similar but pricier sweepers. Robot vacuum cleaners, it seems, are catching on.

Are these mere playthings, or the beginning of a new trend? Roomba is just the tip of the iceberg, according to Helen Greiner, co-founder of iRobot, which also sells industrial and military robots. Dan Kara of Robotics Trends, a consultancy, agrees. “The tipping point might be Roomba,” he says.

Even if this is true, however, it would be quite a come-down compared with the robotic future that seemed, for much of the 20th century, to be just around the corner. Since 1939, when Westinghouse Electric introduced Electro, a mechanical man, at the World's Fair in New York, robot fans have imagined a world filled with tireless robotic helpers, always on hand to wash dishes, do the laundry and handle the drudgery of everyday tasks.

So far, however, such robots have proliferated in science fiction, but have proved rather more elusive in the real world. But optimists are now arguing that the success of the Roomba and of toys such as Aibo, Sony's robot dog, combined with the plunging cost of computer power, could mean that the long-awaited mass market for robots is finally within reach. “Household robots are starting to take off,” declared a recent report from the United Nations Economic Commission for Europe (UNECE). Are they really?

Hand-built by robots

Although the dream of the home robot has not died, robots have had their greatest impact in factories. Industrial robots go back over 40 years, when they first began to be used by carmakers. Unimate, the first industrial robot, went to work for General Motors in 1961. Even at a time when computing power was costly, robots made excellent workers and proved that machines controlled by computers could perform some tasks better than humans. In addition, robots can work around the clock and never go on strike.

There are now about 800,000 industrial robots around the world, and orders for new robots in the first half of 2003 were up a record 26% from the same period in 2002, according to the UNECE. Demand is increasing as prices fall: a robot sold in 2002 cost less than a fifth of an equivalent robot sold in 1990, for example. Today, in car factories in Japan, Germany and Italy, there is more than one robot for every ten production workers.

Similarly, agricultural robots harvest billions of tonnes of crops every year. There are six-legged timber cutters, tree-climbing fruit-pickers, robots that milk cows, and others that wash windows, trucks and aircraft. Industrial robotics is a $5.6 billion industry, growing by around 7% a year. But the UNECE report

predicts that the biggest growth over the next three years will be in domestic rather than industrial robots. Sales of such devices, it predicts—from toys to lawnmowers to, yes, vacuum cleaners—will grow ten-fold between 2002 and 2006, overtaking the market for industrial robots.

The broader application of robotics is becoming possible thanks to the tumbling cost of computing power, says Takeo Kanade of Carnegie Mellon University's Robotics Institute, who has built robots on both sides of the Pacific. This lets programmers write more sophisticated software that delivers more intelligent robotic behaviour. At the same time, he notes, the cost of camera and sensor chips has tumbled too. “The processing power is so much better than before that some of the seemingly simple things we humans do, like recognizing faces, can begin to be done,” says Dr Kanade.

“We may be surrounded by more robots than we realise—just not of the type that Hollywood, or robot researchers, led us to expect”

While prices drop and hardware improves, research into robotic vision, control systems and communications have jumped ahead as well. America's military and its space agency, NASA, have poured billions into robotic research and related fields such as computer vision. The *Spirit* and *Opportunity* rovers exploring Mars can pick their way across the surface to reach a specific destination. Their human masters do not specify the route; instead, the robots are programmed to identify and avoid obstacles themselves.

“Robots in the first generation helped to generate economies of scale,” says Navi Radjou, an analyst at Forrester, a consultancy. Now, he says, a second generation of more flexible and intelligent robots will be able to do many more jobs. Hence the UNECE report's suggestion that domestic service robots might now be entering “into a diffusion process similar to that which the PC, the mobile telephone or the internet have had in recent years.” But if robots really are poised on the cusp of ubiquity, what will they be used for?

Robots go home?

A possible robotic foot in the door could be toys. For the past two years, robots have been among the bestselling toys in the world. And they can be more than just playthings, once they have been hooked up to a network. Personal robots, wireless systems and cheap cameras, all tied together by a PC, could enable robots to water the plants while you are on holiday, or provide a roving set of eyes and ears. Sony's robot dog, Aibo, for example, can be linked wirelessly to a PC, so you can remotely monitor your home through its eyes as it walks around.

Another possibility, long touted by robot fans, is the use of robots to provide nursing care and assistance to the old and infirm. Honda, Mitsubishi and scientists at the Korean Institute of Science and Technology are designing machines to help old or disabled people move from room to room, fetch snacks or drinks, operate the television, and even call the doctor when needed. Though it has been notoriously difficult to pull off, Joe Engelberger, the inventor of Unimate, feels care of the elderly is precisely the opportunity the robotics industry should be pursuing. “Every highly industrialised nation has a paucity of help for vast, fast-growing ageing populations,” he says.

Given that homes are designed for human inhabitants, the best shape for such robots might be humanoid. In Japan, the development of such robots—by firms such as Honda, Mitsubishi and Toyota—seems to have become a symbol of technological superiority. But ultimately, says Mr Engelberger, who went through this with Unimate, if domestic robots are going to succeed, they will have to be reliable and demonstrate value for money. You have got to be able to show, he says, “how this damn thing can justify itself.”

They are already among us

Yet for all the progress in computing, there has not been a corresponding leap forward in robotics. Talk of robot helpers for the elderly has been around for years. Only a fervent optimist would take the success of the Roomba as the dawning of a new robotic era. But there is another way to look at things. We may, in fact, be surrounded by more robots than we realise. The trouble is that they have not taken on the forms that Hollywood, or robot researchers, led us to expect. Automated machines have, however, quietly slipped into many corners of everyday life.

Far more prevalent than robot vacuum cleaners are copiers that collate, staple and stack your documents and automated-teller machines that, as their name suggests, save human bank tellers the trouble of dispensing cash. Other machines scan groceries, wash dishes, make bread, sort mail by reading hand-written addresses, and dispense train tickets. Commercial airliners fly and even land themselves using radar and satellite-positioning systems to navigate through fog and storms. Autonomous trains, akin to giant robotic snakes, drive themselves. All of these devices are autonomous computer-controlled machines, capable of responding to changing circumstances in accordance with orders from their human masters. They are, in other words, robots. But they are not the general-purpose mechanical men that most people associate with the term.

Why not? The answer, ironically, could lie in the rapid advance of computing power. Back in the mid-20th century, when the robotic future was being imagined, computers were huge and expensive. The idea that they would become cheap enough to be integrated into almost any specialised device, from a coffee-maker to a dishwasher, was hard to imagine. Instead, it seemed more likely that such intelligence would be built into a small number of machines capable of turning their robotic hands to a range of different tasks. In place of the general-purpose housebot, however, we are surrounded by dozens of tiny robots that do specific things very well. There is no need to wait for the rise of the robots. The machines, it seems, are already among us.

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CASE HISTORY

DNA's detective story

Mar 11th 2004
From The Economist print edition

The analysis of genetic material, to create DNA fingerprints and profiles, has revolutionised forensic science. But, as this case history explains, having overcome initial doubts over its accuracy, the proponents of DNA analysis now face new and more challenging ethical questions

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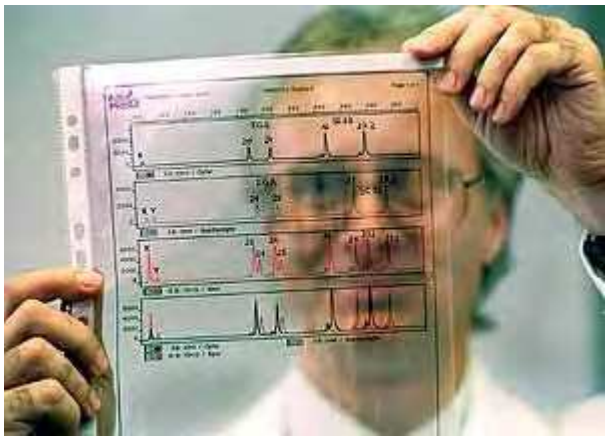


Whodunnit?

IN 1985 a Ghanaian boy, who had arrived in Britain to join his mother on what looked like a forged passport, was in danger of being deported. The family's lawyer asked Alec Jeffreys, a geneticist at Leicester University, if there were any way to establish maternity genetically. A few months earlier, Dr Jeffreys had identified regions in the human genome that differed from person to person which, he reckoned, could be used in parentage testing and forensic analysis. Trying out his theory, Dr Jeffreys compared the mother's DNA with that of the disputed son, as well as with her other children. The result made history. The family's DNA fingerprints not only showed that the boy was indeed her son, but also that all her children shared the same father. The Home Office dropped the case, and the boy was allowed to stay.

Since this first application, DNA fingerprinting and its cousin, DNA profiling, have taken paternity disputes and forensics by storm. In 2001, American labs alone performed more than 300,000 paternity tests, and many countries have compiled large DNA databases. Two decades after its discovery, forensic DNA analysis has become an invaluable crime-fighting tool.

But DNA profiling did not have an altogether easy ride. Because of its power to aid convictions (including those carrying the death penalty) and cumbersome early technology that could potentially produce ambiguous results, the early 1990s saw a massive effort to impede the use of DNA evidence in court. In the end, the challenges did not undermine the technology, but improved it, by helping to set much-needed standards for collecting, storing, processing and interpreting DNA profiles. At the same time, the popularity of books and TV dramas about forensic detective-work has introduced millions to genetic analysis.

Spot the difference

The origins of DNA fingerprinting go back to the early 1980s, when Dr Jeffreys was searching for sites in human DNA that differ from one individual to the next. Such variation between people is minimal. Over

99% of the human genome—a sequence of over 3 billion genetic “letters”—is common to everyone. The tiny variations that do exist are what make people unique, define their appearance and predispose them to disease. Back then, variations of a single genetic letter, or “base”, known as single-nucleotide polymorphisms (SNPs), were hard to track down. The problem is akin to spotting single-letter variations in two almost identical books. So Dr Jeffreys began to look for larger, more variable areas.

A few such regions, known as mini-satellites, had been discovered by accident. They were made up of a sequence of bases that was repeated or “stuttered” tens or even hundreds of times. And while the “stutters” were more or less identical, the number of times each was repeated, and hence the length of the repeating DNA region, varied greatly.

While working on an unrelated project, Dr Jeffreys made a breakthrough. In 1981, he and his team were analysing a lump of seal meat, to isolate a particular gene. When they compared the seal's gene to the human version, they stumbled across a mini-satellite. Interestingly, the repeat sequence looked similar to a few other mini-satellites described in scientific journals. Perhaps DNA preferred to stutter in a predictable way, Dr Jeffreys reasoned, just as people stumble over the same tongue-twister. So a carefully chosen radioactive “probe”, consisting of a short sequence or “motif” of DNA bases, should latch on to the repeating sequence of many different mini-satellites simultaneously and act as a highlighter, picking out variable DNA regions.

Putting this idea to the test was an arduous process. First, the DNA had to be chemically extracted from blood (it is present in white blood cells) or another source such as semen, saliva or hair roots. Next, chemical scissors in the form of a “restriction enzyme” cut the DNA outside the mini-satellite regions wherever a particular sequence of bases occurred. Because the lengths of mini-satellites vary, the lengths of these chopped-up fragments vary too.

“While critics succeeded in making it clear that DNA testing was not foolproof, such scrutiny improved it by helping to define much-needed standards”

To sort the fragments by size, they were placed on a thick slab of porous gel that acted like a sieve. DNA fragments have a slight negative charge, so by applying an electric field, the pieces were enticed to move through the gel. Because the smaller fragments could move more rapidly through the pores in the gel, they had travelled further than the larger fragments by the time the electric field was switched off. The sorted DNA fragments were then soaked in an alkaline solution which unzipped each fragment's double helix, to produce single strands of DNA. These were blotted on to a nylon membrane, and treated with a radioactive probe that bound selectively to strands containing a specific DNA sequence. With the help of X-ray film, which is sensitive to radioactivity, the mini-satellites became visible in the form of bands that resembled a supermarket bar code.

The “Eureka!” moment occurred on September 15th 1984, at 9am. Using the same radioactive probe, Dr Jeffreys and his team had analysed DNA from a human family, a baboon, a cow, a mouse and even a tobacco plant. They found that the resulting patterns, consisting of 15 to 20 highly variable bands, were specific to individuals. (Only identical twins share the same pattern.) And when they looked at the human family group, they could see that the parents had different patterns, while their offspring had a composite of both. While searching for genetic markers, Dr Jeffreys had stumbled on a technology that could be used for identity testing, establishing familial relationships and conducting ecological studies. Dr Jeffreys dubbed his discovery “DNA fingerprinting”.

Criminal intent

After solving his first immigration dispute successfully the following year, Dr Jeffreys was bombarded with other inquiries. In 1986 he received a phone call from the local Leicestershire Constabulary, with a special request. Would he be able to help solve a double-murder case?

Dr Jeffreys knew that his original DNA-fingerprinting technique

was unsuitable for use in criminal cases, for a number of reasons. For one thing, a reasonable amount of DNA was needed to make the method work, something that is not often available at a crime scene. Next, since the radioactive probe attached itself to numerous different mini-satellite regions, there was no way to tell which of the 15 to 20 bands corresponded to a particular region. And repeating his procedure with the same DNA on a different day in a different laboratory could cause fainter bands to come and go. All of this could lead to confusing results and provide ammunition for defence lawyers.

The solution was a simplified version of DNA fingerprinting, which Dr Jeffreys calls DNA profiling (though other scientists use the terms interchangeably). Instead of probing multiple regions of variation in the human genome, he developed a number of more specialised “single-locus” probes (SLPs). Each one attaches itself to only one predetermined mini-satellite region, or locus, and produces a much simpler pattern of just two bands, corresponding to one gene inherited from the subject's mother, and one from the father. In effect, each SLP measures the length of each of these inherited mini-satellite regions, which can vary from person to person.

Of course, the result is no longer specific to an individual. There is at least a 25% chance that siblings will produce matching bands for a given SLP. But as the results of multiple different SLPs are combined, the probability that two people, related or not, will share the same profile goes down exponentially. This new approach was time-consuming, however, since the entire DNA-typing process had to be repeated for each SLP, which could take several weeks.

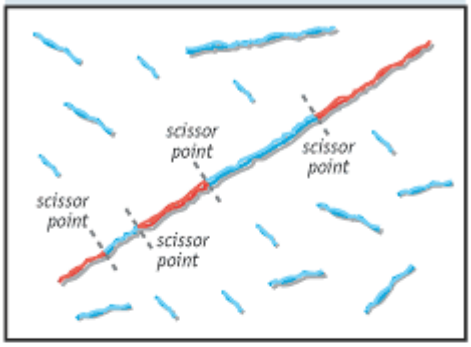
Dr Jeffreys tested his new SLP system in a gruesome murder case. Two 15-year-old girls had been found raped and strangled in close proximity. Police, convinced that the same person had killed both girls, had arrested a disturbed young man who confessed to one of the murders. Dr Jeffreys was asked to analyse tissue samples from both girls, and compare traces of semen found on the victims with a DNA sample from the suspect. The result was a surprise. The two girls had been killed by the same person—but it was not the young man under suspicion.

“My first reaction was ‘Oh my God, there is something wrong with the technology',” recalls Sir Alec, who was knighted in 1994. But it had worked perfectly. The Home Office's Forensic Science Service did more tests and came to the same conclusion: the double murderer was still at large. The police let their initial suspect go, and instead asked a host of other local men for blood samples. But the first-ever DNA mass screening produced no successful match. In 1987, however, a woman overheard a man boasting that he had given a blood sample on behalf of a colleague, Colin Pitchfork. Mr Pitchfork was asked to provide a sample, and it matched the semen from both victims. “The first time DNA was ever used, it didn't prove guilt, it proved innocence,” Sir Alec observes.

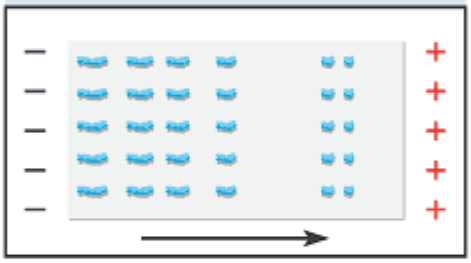
But while DNA profiling received much praise and attention initially, it did not take long before a challenge to the new technology popped up in America's courtrooms. In February 1987, Vilma Ponce and her two-year-old daughter were stabbed to death in their Bronx apartment. Police quickly found a suspect, Jose Castro, who was said to have left the scene in a

How DNA fingerprinting works

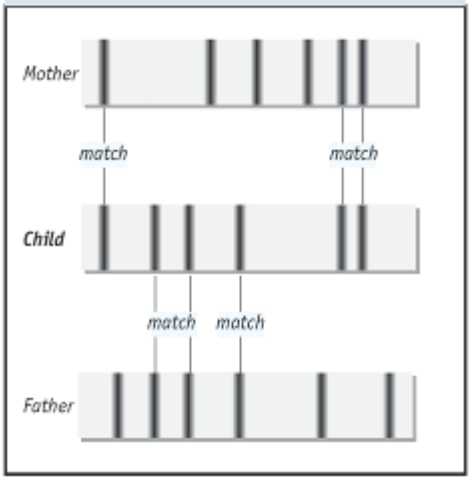
1. The DNA is chemically extracted from blood, skin, hair roots, saliva or semen. Chemical scissors called restriction enzymes, which cut DNA strands wherever a specific genetic sequence occurs, are used to chop up the sample in predetermined places. This isolates special regions of DNA that vary in length from one person to another, producing many fragments of different lengths.



2. The fragments are sorted using a process called electrophoresis, which involves drawing them through a porous slab of gel using an electric field. The smaller the fragments, the more easily they pass through the pores in the gel, and the further they get.



3.The sorted fragments of DNA are “unzipped” to produce single strands of DNA and then “blotted” on to a nylon membrane. But they are invisible. So a radioactive probe is applied, consisting of radioactive material attached to short strands of DNA which bind selectively to DNA fragments. Using X-ray film, which is sensitive to radioactivity, the fragments become visible as dark bands and produce a fingerprint. In modern DNA profiles, software translates the variation in lengths of different DNA fragments into both peaks and numbers.



hurry. During their investigation, detectives found a small stain of dried blood on Mr Castro's watch. Lifecodes, one of the few laboratories offering DNA-profiling services at the time, was asked to perform the necessary analysis. The company soon declared a match between the mother's DNA pattern and that found on the watch.

But Mr Castro's lawyers questioned Lifecodes' finding. They enlisted the help of several scientists, including Eric Lander of the Whitehead Institute in Cambridge, Massachusetts, who went on to become a leading light in the effort to sequence the human genome. The defence team found numerous problems with Lifecodes' procedures. When it compared the mother's profile to that found on the watch, for example, two extra, non-matching bands were discovered that Lifecodes had simply discounted as contamination without further tests. Moreover, on closer inspection, not all the other bands matched after all. Lifecodes' scientists conceded that they had simply compared the profiles by eye, rather than getting a computer to make an objective comparison.

The defence also questioned Lifecodes' assertion that the chances were 189m to one against an unrelated person matching the mother's profile. In fact, calculating the probability of a random match with a specific profile can be very complicated, and depends on the rarity of a person's mini-satellite sizes at each locus within a given ethnic population. Under scrutiny, Lifecodes' numbers did not add up. In an unprecedented decision, experts from the prosecution agreed, and both sides deemed the DNA evidence inconclusive.

“It is more difficult to criticise innovations that have legitimate uses in fighting crime. But such technologies deserve special public scrutiny”

The debate moved from the courtroom into the scientific journals. In 1989, Dr Lander summarised his conclusions from the Castro case in an article in *Nature*. Entitled “DNA fingerprinting on trial”, it called for the establishment of objective guidelines to interpret DNA profiles. This process took a few years. In 1992 and 1996, America's National Research Council, a private non-profit organisation that provides scientific advice to the federal government, released lengthy reports on DNA profiling, endorsing the procedure for courtroom use and calling for laboratory accreditation. Meanwhile, the FBI conducted studies that examined the frequencies of mini-satellite variations in different ethnic groups, and laboratories improved their procedures.

While it had become clear that DNA testing was not foolproof, all this scrutiny only strengthened its power. (Even in the notorious O. J. Simpson case, the defence lawyers never contested the admissibility of the DNA evidence, but pointed out that the way it had been collected and preserved was flawed.) In a 1994 article in *Nature*, the sceptical Dr Lander and Bruce Budowle, a principal architect of the FBI's DNA-typing programme, jointly laid the dispute to rest. They agreed that the technology was “the greatest advance in forensic science since the development of ordinary fingerprints in 1892.”

The sensitivity of DNA analysis was dramatically boosted with the invention of the polymerase chain reaction (PCR) technique by Kary Mullis, then a scientist at Cetus Corporation, in 1983. This elegant technology, for which Dr Mullis received the Nobel prize in 1993, can rapidly replicate short DNA fragments. The two strands of the double helix are “unzipped” in a soup of loose DNA bases. Complementary new strands are then formed alongside the original single strands, creating two copies of the original DNA fragment. By repeating the procedure, millions of copies of a fragment of DNA can be produced quickly.

Unfortunately, PCR was not suitable for use with long DNA fragments such as mini-satellites. In 1991, Thomas Caskey, then chair of the human-genetics department at Baylor College of Medicine in Houston, Texas, suggested using short tandem repeats (STRs)—in effect, smaller versions of mini-satellites—instead. This inspired Peter Gill, a researcher at Britain's Forensic Science Service, to develop a technique for amplifying and processing genetic information from several different loci simultaneously. The new PCR/STR technology was simpler and faster, and could create a profile in days, not weeks. It was also far more sensitive, and could be used with very small and degraded samples, such as flecks of dandruff or decomposed body parts.

In the mid-1990s, as DNA profiling became ever more powerful and easy to conduct, Britain started to compile a national DNA database. Tests analyse STRs in ten different places within the genome, and the chance of two unrelated people sharing the same profile is put at one in a billion. Similarly, the FBI Laboratory's Combined DNA Index System, which links databases from America's local, state and national law-enforcement agencies, stores profiles based on 13 STR loci, and boasts a random-match probability of one in trillions.

These days there is no longer much discussion about the discriminatory power of current DNA typing systems. Nonetheless, a new controversy is brewing, this time about ethics. Unlike medical DNA testing, forensic DNA profiling reveals nothing about a person's physical features or genetic predisposition to disease. STR loci used in police databases come entirely from non-coding regions of the human genome. But as new technologies are developed to investigate genetic differences for medical purposes, they may be appropriated to provide clues about criminal suspects.

Big Brother is watching your DNA

The benefits for criminal casework are obvious. A suspect's genetic material might provide information about his or her skin, hair or eye colour. Britain's Forensic Science Service already offers an “ethnic inference service” and a red-hair test. DNAPrint Genomics, of Sarasota, Florida, recently helped police in Louisiana track down a suspected serial killer with a genetic test that identifies an individual's ethnic mix. The firm has also devised a test to predict eye colour. Other researchers are even looking for links between genetic traits and facial features.

Sir Alec strongly opposes this sort of thing, since it blurs the boundaries between forensic and medical analysis. “If you were to look at genes involved in facial features, you can bet your bottom dollar that you'd also access information about serious congenital defects,” he says. “Police have absolutely no right to that information. I believe forensics and medicine should forever remain separate.” But the existence of laws that allow the police to collect such genetic information in Britain, the Netherlands and Japan suggests that lawmakers think otherwise.

DNA analysis, with its power to reveal intimate personal details, is just one of many technologies that have ominous, Big Brotherish uses. It is more difficult to criticise innovations that have legitimate uses in fighting crime. But such technologies deserve special public scrutiny, since their abuse could make possible unacceptable discriminatory practices and lead to invasions of privacy on a massive scale. It seems that unlike the technical challenges that forensic scientists quarrelled over during the early 1990s, the ethical disagreements that are now arising from the use of DNA analysis could prove far more difficult to resolve.

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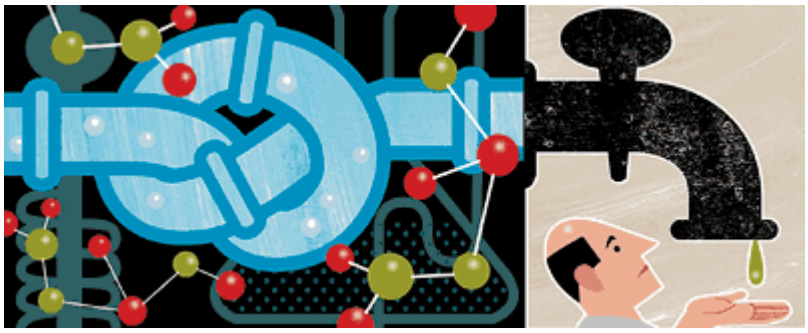
REPORTS

Fixing the drugs pipeline

Mar 11th 2004
From The Economist print edition



Drug design: The more pharmaceutical companies spend on research and development, the less they have to show for it. What has gone wrong—and how can it be fixed?

THE pharmaceutical industry is one of the biggest and most lucrative in the world, with annual sales of around $400 billion. Pfizer, a drug giant, rivals Microsoft in market capitalisation, and the two are exceeded in size only by General Electric. Pfizer and other giants such as GlaxoSmithKline, Aventis and Merck routinely report multi-billion-dollar profits. But despite its outward strength, the industry is ailing. The “pipelines” of forthcoming drugs on which its future health depends have been drying up for some time.

As long ago as 1995, Jürgen Drews, then the head of research at Hoffmann-La Roche, warned that leading drug companies were not generating novel therapeutic agents at a rate sufficient to sustain themselves. Globally, research funding has doubled since 1991, but the number of new drugs emerging each year has fallen by half (see chart). Last year, for example, America's Food and Drug Administration (FDA) approved only 21 “new molecular entities”—industry jargon for new drugs—down from 53 in 1996. The more they spend on research, the less the pharma giants seem to have to show for it.

This sorry state of affairs is due to a combination of factors, the relative importance of which is hotly debated. One is the industry's obsession with producing “blockbusters”—drugs with annual sales of $1 billion or more. As they search for such bestsellers, firms may mistakenly be passing up smaller, but still profitable, opportunities. And as patents expire and revenues from old drugs dry up, costs are rising inexorably, not just in research, but also in sales and marketing.

So far, the industry has responded with cost-cutting and organisational changes. The underlying challenge, however, is to address the innovation deficit. But how? Flashy new drug-discovery technology has lost its shine, having consumed huge sums of money during the 1990s with little to show for it. Yet something new is undoubtedly needed, not least because the diseases of current interest to researchers—such as cancer and Alzheimer's—are more complex than, say, heart disease, which means that treatments will take longer to develop.

Drug company, heal thyself

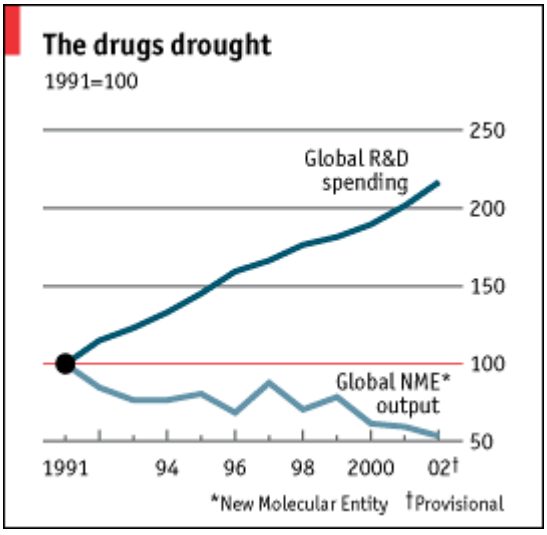
Creating a drug is not easy. Once a potentially treatable disease is chosen, a target molecule, usually a protein, has to be identified which can be modified with a drug to produce the desired effect. Next, chemical compounds are made and tested against this target. The most promising of the “hits” are selected and optimised to suit a profile of “drug-like” properties. These optimised hits become “leads” that are tested, first in animal models of the human disease and then, if all goes well, in humans. According to an oft-quoted figure from the Tufts Centre for the Study of Drug Development, in Medford,

Massachusetts, the entire process typically costs $900m and takes 15 years. Only one in 1,000 compounds tested makes it into human trials, and only one in five of those emerges as a drug.

That is why expectations were high when two much-hyped technologies—combinatorial chemistry and high-throughput screening—appeared on the scene in the 1990s. They promised to speed up the development of new drugs by exploiting automation: the ability to generate and test many new compounds quickly would, it was hoped, increase the rate at which new leads were produced. The approaches looked promising, in that they generated lots of hits. But while the quantity improved, the quality did not. The number of new leads going into clinical testing did not increase, and enthusiasm for the new technologies waned.

Similarly, the sequencing of the human genome was expected to revolutionise the process of drug discovery. It is undeniably a remarkable achievement, but looked at squarely, it represents a “parts list” of genes whose connection with disease is still obscure. It has also provided thousands of potential targets for new drugs that researchers must sift through. The flood of information has caused a kind of “paralysis by novelty” that the industry is only now starting to come to terms with, says Michael Gilman, head of research at Biogen Idec, a firm based in Cambridge, Massachusetts. If the industry can overcome this paralysis, however, that novelty spells opportunity. The genome is estimated to contain around 5,000 pharmaceutically relevant genes. According to Arthur Sands, the boss of Lexicon Genetics, a firm based in Woodlands, Texas, the 100 bestselling drugs target 43 genes between them, and the top 200 just 47. “The whole industry is running on less than 50 genes,” he says.

As a result, much effort is now being focused on using combinatorial chemistry and high-throughput screening more appropriately than in the past, and finding new ways to identify targets, determine the structure of proteins, and test compounds for activity and behaviour. The key aim is to distinguish winners from losers as early as possible. Failure can occur at any point in the discovery process, and the later the failure, the more costly the loss. A target may be important but not chemically tractable; drug compounds generated may not work, or not work well enough; a promising lead may turn out to be toxic. “Fail early, fail cheap” is the industry's mantra.



Overhauling the pipeline

Starting at the beginning of the process, a major reason drugs fail is misunderstood biology. So “validating” a target—identifying it and making sure it is physiologically significant—is an area of much activity. A standard way to study a target gene's function is to create mice in which the gene has been “knocked out” from every cell. Recent refinements in knockout techniques have speeded up the process and made it more precise. Lexicon, for example, is analysing 5,000 mouse genes and studying the physiology and behaviour of mice to discover novel drug targets in a number of areas, including cognitive and neurodegenerative disorders. Similarly, Exelixis, a firm based in South San Francisco, is validating targets using knockout techniques in mice, zebrafish, worms and fruitflies.

Once the biology of a target has been nailed down, a drug must be found that fits the target precisely. In theory, computers can be used both to predict how well a drug will match a target of known structure, and to tailor-make drugs from scratch. But the more complex the target, the harder it is to model drug interactions. In practice, *in silico* biology has yet to deliver on its promise: very few successful drugs have actually been made this way.

The wider the range of candidate compounds, the better the chances of finding a good fit with the target. Hence the appeal of combinatorial chemistry, which can quickly produce mixtures of millions of different compounds. But this tends to produce compounds that are very similar to each other. In contrast, “click chemistry”, a new approach invented by Barry Sharpless, a Nobel laureate at the Scripps Research Institute in La Jolla, California, produces a greater diversity of structures by snapping more carefully chosen molecular building blocks together in various combinations. Lexicon's pharmaceuticals division is looking for new drugs using this method.

“Rather than abandoning established practices for new-fangled techniques, these novel approaches to drug discovery

combine the best of both”

The enthusiasm for combinatorial chemistry also diverted attention away from compounds derived from natural products. Once a mainstay of pharmaceutical research, and the source of antibiotics and anti-cancer drugs, natural products were left behind in the rush to automation because they are complex and hard to make. But now they are making a comeback in the form of novel twists on combinatorial techniques.

Complex sugars, for example, perform various functions on the surfaces of living cells, and play a role in diseases such as viral infections and cancer. Peter Seeberger of the Swiss Federal Institute of Technology, in Zurich, has automated the production of a limited number of these molecules, reducing the time required to make them from months to hours, and has produced a candidate vaccine for malaria. Stuart Schreiber of Harvard University prefers compounds that resemble natural products. He is using a combinatorial strategy called “diversity-oriented synthesis” to exploit some of the desirable properties of natural products.

Yet another approach to finding promising compounds comes from Astex Technology of Cambridge, England. It has automated X-ray crystallography—a technique used to determine the three-dimensional structure of proteins—to screen large collections of very small molecules to determine whether they would stick to a particular target in a desirable way. Another problem with combinatorial chemistry, says Harren Jhoti of Astex, is that over time, the compounds it produced were getting larger and larger. Astex points to evidence showing that the larger a drug candidate, the more likely it is to fail on the way to market. Its approach, in contrast, starts with tiny fragments, and adds on other bits where necessary.

But even the most promising drug candidates are no good if they are too toxic. A critical part of analysing leads is finding out how a drug will act in the body, by performing a so-called ADMET study (for absorption, distribution, metabolism, excretion and toxicity). Toxicology is a particular *bête noire*, says Chris Lipinski, a senior researcher at Pfizer. Software can be used to design compounds with favourable properties, but toxicology is difficult to predict computationally. Cell-based tests are better guides than they were in the past, says Mark Murcko, head of technology at Vertex Pharamaceuticals in Cambridge, Massachusetts. But the ultimate test for ADMET studies is animals, usually mice. Even then, because animals are imperfect models, toxicity may only become apparent in human trials. Ideally, toxicology studies would be completed earlier in the process, but so far that has proven difficult.

Evidently there is no shortage of new ways to generate and evaluate drug candidates. One has to be careful, though, not to confuse technical success with progress, says Geoffrey Duyk, a former head of research at Exelixis who is now a venture capitalist. Despite the abundance of tools, he says, most drug discovery and development efforts still fail because of a lack of understanding of how the drugs work, and an inability to predict reliably how the human body will handle them. Until recently, biology essentially involved grinding things up and looking at the pieces. Now, researchers must work from the bottom up to construct a comprehensive understanding of biological processes—a huge task.

The common theme that unites all of these novel approaches to drug discovery, however, is that, rather than abandoning established practices for new-fangled automated and computational techniques, they combine the best of both. “What we need is a combination of old ways and new ways,” says Dr Drews, who is now a partner at Bear Stearns Health Innoventures. This means the right blend of physiology, pharmacology and target-oriented chemistry on one hand and genomics, molecular modeling and structural biology on the other. The pharmaceutical industry, it seems, was too quick to turn its back on the past. It must now combine old and new techniques if it is to prosper in the future.

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REPORTS

Why speed isn't everything

Mar 11th 2004
From The Economist print edition

Semiconductors: When it comes to designing chips, making them go faster is no longer the most significant challenge. Is Moore's Law dead?

IT SEEMS almost obligatory to begin with Moore's Law. The observation made in 1965 by Gordon Moore—that the number of transistors on a chip would grow exponentially—has proven remarkably resilient. (Dr Moore went on to co-found Intel, which is now the world's largest chipmaker.) Each time it seems that the end is in sight, a new technique is devised to make transistors still smaller and cram more of them on to a chip.

The first transistor, built in 1947, was a few inches square and half an inch high. In 1959, two groups separately realised that instead of painstakingly making transistors one at a time, many of them could be created at once by etching conducting pathways on a wafer of silicon, which had the necessary electrical properties.

This paved the way for the modern computer. Once the concept was proven, it was just a question of progressive miniaturisation—the pace of which Moore's Law so optimistically, yet correctly, predicted. Today, transistors are etched into an ultra-thin layer on a microchip, a square inch of which can contain many tens of millions of them.

The first computer chips were designed to execute a series of straightforward operations, one after another, such as adding together or comparing two quantities. The chip could also store results and retrieve them again from a separate memory, which also held the program it was running. Then, as now, the movement of data to and fro, both inside the chip and between the chip and the memory, was co-ordinated using an oscillating crystal, which sends out a periodic signal like a ticking clock.

Over the years, the frequency of this signal, known as the clock speed, became the key measure of processor performance. In parallel with Moore's Law, which predicts that the number of transistors on a chip increases exponentially, the clock speed has done the same, doubling roughly every 18 months from thousands of ticks per second in 1971, to millions in the 1980s, to billions today. But while optimists believe that this process will continue, chip developers across the industry now agree that clock speed will no longer be the key metric of processor performance, for several reasons.

Parallel lives

The first is the growth of parallelism—the practice of getting a chip to execute many different operations simultaneously. In the past, this was confined to the realm of high-end supercomputers, as a way of improving their performance. But it is now becoming common in personal computers, and is bound to become more so. As a result, the amount of processing a chip can perform with each tick of the clock will be just as important as the frequency at which the clock is ticking.

A driving factor behind this parallelism is the fact that, while processor speed has increased with such remarkable rapidity, the speed of memories has lagged. Marc Tremblay of Sun Microsystems, a computer-maker based in Santa Clara, California, says the gap between processor speed and memory speed is likely to grow. Parallelism within a single chip allows several different processing units to share the same memory, so the memory's slowness is not such a problem.

This is because the limiting factor is not so much the throughput of memory chips (the rate at which data can be moved in and out of them) but the administrative overhead associated with moving information in and out of the processor. Because of this, chip designers can gain by putting several distinct processors on the same chip, and have them share a fast, local memory inside the chip itself. This approach is known as multiple cores, or multi-core for short. A related approach is known as simultaneous multithreading. It involves modifying a single processor to enable it to switch quickly between several distinct tasks. While one task is waiting for data to arrive from the main memory, another can continue to execute—so a single processor can, in effect, do the work of many.

A second reason why clock speed will no longer be an accurate measure of performance is that distributing the clock's signal to all the different parts of a chip is more difficult than it sounds. Jo Ebergen, an engineer at Sun, says that reducing the “skew” on a chip—the amount by which clock signals might be out of synch—takes a very skilful chip designer. It is, he says, as much an art as a science. And it is becoming more difficult as chips get larger and more complex.

Tick, tock

That is why Sun is aggressively exploring “asynchronous” technology, which involves getting rid of the clock entirely. This approach has costs as well as benefits, since miniature circuits known as “rendezvous circuits” must be placed at circuit junctions to co-ordinate the flow of data. It is rather like replacing a city-wide network of traffic lights with policemen at every corner. But, says Dr Ebergen, in one recent experiment with a test chip that could run in both synchronous and asynchronous modes, the asynchronous mode won out. That is because in a synchronous design, every operation must wait for the slowest one to complete, while in an asynchronous one, a laggard only delays the local part of a calculation.

Clockless chips, says Dr Ebergen, also have the added benefit of emitting far less radio interference. So asynchronous circuits could be particularly useful in devices such as mobile phones, where radio interference is a substantial concern. Wilf Pinfold, the director of microprocessor research at Intel, points out that opinions over the value of asynchronous design are quite divided. But it seems clear that, at least in a portion of the market, it will become more and more important.

Finally, getting chips to run at higher clock speeds is diminishing in importance because another problem is becoming more pressing: getting them to consume less power. Fred Weber, the chief technical officer of AMD, a chipmaker based in Sunnyvale, California, says power consumption is now the biggest problem in chip design, for several reasons. The first is the growing prevalence of mobile devices, such as laptop and handheld computers. Increasing the battery life of such devices is in some cases more important than squeezing an extra bit of speed out the system.

A related problem is heat. Today's fastest PC microprocessors consume about 100 watts of electrical power, the same as a bright light bulb. But light bulbs get hot—too hot to have inside a desktop computer, and far too hot for the inside of a laptop. That is why desktop computers have noisy fans, and laptop computers are never as fast. Ghavam Shahidi, who works at IBM Research in East Fishkill, New York, predicts that high-end PCs may well come to rely upon novel techniques, such as water-cooling systems. But for PCs aimed at the mass market, fancy cooling systems will make desktop machines too expensive and laptops too bulky.

So designers are now striving to minimise the power consumption of their chips, with speed as an ancillary consideration. Dr Pinfold says one solution his team is exploring is to use multiple cores, switching from one to another not to increase speed, but rather to minimise the total heat generated. When one core gets too hot, it is switched off for a while to cool down, while another core takes over.

Into the third dimension

All of these ideas are already, to a greater or lesser degree, finding their way into existing microchips. For example, Philips, a Dutch electronics manufacturer, has already built a pager that uses asynchronous technology. Intel already sells chips capable of simultaneous multi-threading, and Sun's UltraSparc IV chip, launched in February, incorporates both multiple cores and multi-threading.

What next? One problem, says Dr Ebergen, is that as the performance of individual chips in a computer improves, the limiting factor on the system's overall performance becomes the “interconnect” between the chips. This currently consists of pins—little wires, essentially—protruding from the edge of the chip. Although the number of these pins has increased, it has not increased nearly as fast as the number of transistors. The result is that a chip with billions of transistors must make do with just a few hundred pins to communicate with its neighbours.

One solution that Sun is investigating is called “proximity communication”. Rather than using wires to connect two chips, the chips would instead be placed very close together. A build-up of electric charge on one chip then induces a corresponding build-up on the other, by a process known as capacitive coupling. If Sun can work out all the kinks, this approach would increase the density of the interconnect, improving the overall system performance. Dr Tremblay says the technology may be available as soon as 2007, at least at the high end of the market.

Dr Weber, at AMD, sees another way forward. In the past, he says, the limiting factor on chip performance was the transistors themselves—getting them to be small and fast enough. But transistor design has progressed so much that, although further progress is certainly possible, the thing holding chips back today is not the transistors but the wires—the metal paths etched on to the chip—that electrons must travel along to get from one part of a chip to another.

One way of speeding things up would be to make chips in three dimensions, rather than on a flat plane as they are today. Dean McCarron, an industry analyst at Mercury Research, points out that this is already happening to some extent, since wires can cross over one another on a chip, though no actual transistors are stacked on top of each other. Even so, a true three-dimensional chip is still some way off, as the necessary etching technology is still in its infancy. Dr Weber acknowledges that there will also be design challenges to overcome. For example, heat dissipation from the interior of such a chip will be even more difficult to manage than with existing designs.

So does all this spell the end of Moore's Law? Its demise has, after all, been predicted many times in the past. There is no simple answer. On the one hand, it seems the law, at least as it relates to increases in transistor density, will continue to hold for some time. On the other hand, the law's significance is likely to diminish, as computer-buyers demand more than just speed from their machines—and chip designers tailor their wares accordingly.

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LAST WORD

Nanotechnology's unhappy father

Mar 11th 2004
From The Economist print edition

Eric Drexler invented nanotechnology. But what he thought he had invented is not what has come to pass

IT IS a galling thing to see your invention stolen. That is not, however, what Eric Drexler thinks has happened to him. Rather, and rather worse, he believes the name of his invention has been stolen and applied to something else. That name is nanotechnology, and Dr Drexler is cross not merely about the theft, but the fact that he feels the theft has stopped him pursuing his original vision. For the term nanotechnology, which once had a precise, if far-off, meaning, is now being bandied about by every Tom, Dick and Harriet with half a plan for making very small things, and a need to get a government grant or raise venture capital.

Miniaturisation is not, of course, a new idea. One of the consistent aims of innovation has been to make things as small as possible. Smallness saves space. It brings portability, the possibility of cramming more components together in order to achieve more sophisticated ends and, not least, a saving in materials used, and thus in cost. It was Richard Feynman, one of the 20th century's most famous and eclectic physicists, who first raised the idea that miniaturisation might go all the way down to the molecular level, and that devices with components made from defined and countable numbers of atoms might be made. He did so in 1959, in a lecture entitled “There is plenty of room at the bottom”.

> I don't know how to do this on a small scale in a practical way, but I do know that computing machines are very large; they fill rooms. Why can't we make them very small, make them of little wires, little elements—and by little, I mean little. For instance, the wires should be 10 or 100 atoms in diameter, and the circuits should be a few thousand angstroms across. Everybody who has analysed the logical theory of computers has come to the conclusion that the possibilities of computers are very interesting—if they could be made to be more complicated by several orders of magnitude. If they had millions of times as many elements, they could make judgments...And in many other ways, they would have new qualitative features.

In the late 1950s, Feynman's vision was just a pipedream. But it helped provoke the interest of the young Eric Drexler. He took his musings to the Massachusetts Institute of Technology in the late 1970s, turning them into a PhD thesis and a book called “Engines of Creation”, which was published in 1986. His vision was of a revolution in manufacturing technology. Instead of being constructed from the top down, by moulding and machining big things into small ones, objects would be built from the bottom up, from their constituent atoms.

Crucially, this would not be done by the familiar processes of chemistry. These involve reactions in solutions, or in which at least one component is a liquid or a gas. Instead, Dr Drexler imagined a world of “molecular assemblers”—molecule-sized machines that would take individual atoms and position them exactly where required in the device under construction. No liquid or gas would be involved. To distinguish this process from the “solution-phase” of traditional chemistry, Dr Drexler described his new chemistry as “machine phase”.

The objects put together by assemblers might be small (molecule-sized medical devices that could enter cells and tweak them, for example). They might be large (rocket motors, for example). But the key point was that they would be actively built, rather than simply coming together by the random processes of diffusion that govern solution-phase chemistry.

A bold idea. But to sell an idea you need marketing. And Dr Drexler managed to pull off a trick that most marketing managers would give their eye teeth for. He coined a term that has entered the popular

consciousness. Molecular dimensions are measured in billionths of a metre, known as nanometres. So he called his vision “nanotechnology”.

One of the themes of “Engines of Creation” is the idea of novel replicators—the thought that at least some sorts of nanotechnology would involve molecular machines which could reproduce themselves. Life is one sort of replicating system that already exists (and, indeed, uses nanotech-like elements to do its replication). But the book also mentions another. This is the idea that Richard Dawkins, a biologist at Oxford University, had of describing human culture in terms of “memes” that replicate by leaping from brain to brain.

Nanotechnology, as Dr Drexler describes it, may or may not come to pass. What is undeniable is that he has created a new replicator. The term nanotechnology became one of the most successful memes of the late 20th century. And it has also illustrated one of the other properties of replicators—their tendency to mutate. Like a gene that originally had one function, and then evolved a different one, the term nanotechnology is now widely used to mean something rather different from Dr Drexler's original vision. And that, ironically, seems to be because it was such a good marketing tool in the first place.

Room at the bottom?

The ecological niche that the term nanotechnology now inhabits is much closer to traditional chemistry than to the Drexleresque world of assemblers and molecular manufacturing. Pretty much anything that involves making molecules with more than a few dozen atoms in them is climbing on the bandwagon. Indeed cynics, of whom there are many, doubt whether the term actually describes anything at all, beyond a trend that would have happened anyway to do ever more precise chemistry.

Cynics have reason for their scepticism, for the one thing the term nanotechnology undoubtedly does describe is big budgets. The ponderously named 21st Century Nanotechnology Research and Development Act, for example, was signed into law by President George Bush in December. This act proposes adding $3.7 billion to the budget of the American government's National Nanotechnology Initiative between 2005 and 2008.

“Nanotechnology now refers to something much closer to traditional chemistry than to the Drexleresque world of molecular manufacturing”

Yet ecological shifts do not happen for no reason, either in biology or in sociology. And although a lot of the “new wave” nanotechnology would indeed have happened anyway, it is, nevertheless, actually happening—unlike molecular manufacturing. There are few commercial products yet, but some are clearly on the horizon. Objects called carbon nanotubes, for example, are employed in a new generation of display unit that combines the sharp picture-generating method used in cathode-ray tubes with a screen as flat as that of a liquid-crystal display. Nanotubes may also form the basis of a new electrical conductor that would be as good at power transmission as copper, but cheaper and one-sixth of the weight. Nor is Feynman's vision of truly miniature computers neglected. Molecule-sized transistors and other electronic components have now been created, and researchers are trying to work out how to fit them together. “Nanoparticles” of controlled dimensions have even been used in sunscreens.

But nanotubes are grown from gases, using traditional catalysts. And molecule-sized transistors and nano-sunscreens are also synthesised without a molecular assembler in sight. Does it matter? In the grand scheme of things, probably not. As Shakespeare said, “What's in a name? That which we call a rose, by any other name would smell as sweet.” If nanotubes, molecular electronics and even sunscreens end up smelling sweet—in other words, generating useful and profitable products—the user will not care whether the methods used to make them are called chemistry or nanotechnology. But there are, perhaps, two more subtle reasons to worry about the mimetic mutation that has sexed-up chemistry with a brand new label.

20:20 foresight?

One of these reasons is that nanotechnology is not the only meme Dr Drexler has unleashed. He also invented the term “grey goo”. In “Engines of Creation” he mooted the idea that self-replicating assemblers might, if mendaciously designed, eat everything around them and turn it into more assemblers. The resulting mass would, he suggested, be a grey goo that could take over the planet.

That fear lay dormant until picked up by Bill Joy, then chief scientist at Sun Microsystems, in an article published in *Wired* in 2000. Then Michael Crichton used it in a novel called “Prey”, and really put the cat among the pigeons.

There are all sorts of reasons why, even if Drexleresque machine-phase nanotechnology did come to pass, grey goo is not a plausible consequence. In any case, self-replicating assemblers will not come to pass soon, if ever. But that has not stopped fear of grey goo, with a little help from certain neo-Luddites, sticking in the public imagination. Even the heir to the British throne has expressed concern about nanotechnology, as a consequence of reading about grey goo. It is not likely that the grey-goo meme will stop progress, but it might. Opposition to agricultural biotechnology grew strong with almost as little scientific foundation.

The other reason for concern is that the mutation of the nanotechnology meme has drawn attention—and, Dr Drexler argues, funding—away from the possibility that he might, actually, be on to something. His voice, it has to be said, is a lonely one now. A second book, “Nanosystems”, published in 1992, made a good case that nanomachines would work if they could be built, but was hazy on how to get to the point where they might be. That, many mainstream chemists believe, is because making them using molecular assemblers is impossible.

Their objection was outlined by Richard Smalley, of Rice University in Texas, in a recent exchange of letters with Dr Drexler in *Chemical and Engineering News*. Dr Smalley, whose projects include work on nanotube power-transmitters, says that considerations of geometry, the sizes of atoms, and the space available to work in mean that assemblers could never do the sorts of jobs that Dr Drexler assigns to them. Dr Drexler denies this vehemently, and claims that Dr Smalley and his supporters have misinterpreted the arguments.

For the moment, though, Dr Drexler seems to have suffered the fate of prophets throughout the ages—to be not without honour except in his own country, the republic of science. At present he works from an organisation called the Foresight Institute, which he founded to explore the nanotech future. Whether he has truly seen that future remains, as it were, to be seen.

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Royal Dutch/Shell

Another Enron?

Mar 11th 2004
From The Economist print edition

Assessing the seriousness of Shell's crisis

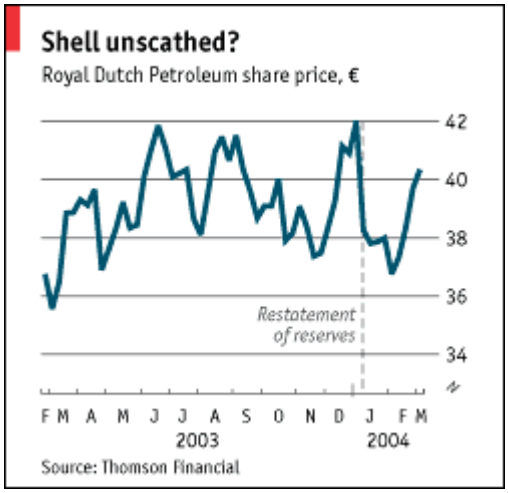
ROYAL DUTCH/SHELL, one of the world's largest oil companies, “recklessly violated accounting rules and guidelines, which resulted in an enormous and shocking overstatement of oil and gas reserves.” So claims Berger & Montague, an American law firm now suing Shell on the grounds that this “enormous” deception has harmed shareholders and “severely overstated” the firm's market value. Berger is but one of a number of law firms now preparing class-action lawsuits against the oil major for purported malfeasance. Listen to such voices, and you might think that venerable old Shell has cooked up a scam of Enron proportions.

Just consider the mess. In January, Shell shocked the energy world by reducing its “proven” reserves of oil and gas by a whopping one-fifth, amounting to nearly four billion barrels of oil. Shortly thereafter, Sir Philip Watts, its aloof chairman, brushed off accusations of wrongdoing or incompetence. Even as the firm launched an internal investigation, he vowed to stay at the helm. Last week, the company's board sacked him and appointed a new boss, Jeroen van der Veer. This week, an explanation for the board's surprise decision seemed to turn up: memos leaked to American newspapers suggested that Sir Philip had known as far back as 2002 about the reserves problem.

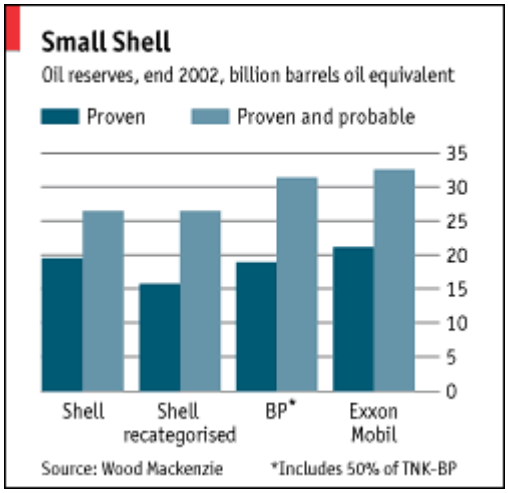
There may be worse to come. The knives are out for Judy Boynton, Shell's American chief financial officer. In addition to the internal investigation, America's Securities and Exchange Commission (SEC) is now looking at the firm. Alas, the leaked memos suggest that Mr van der Veer may also have known about the miscategorisation. And even if he survives the scandal, he may yet (thanks to a court case in New Jersey) have to fend off class-action lawsuits. Glen Abramson of Berger & Montague gleefully declares that the memos surfacing this week strengthen his firm's case. More law firms seem certain to join the scrum before the filing deadline on March 26th.

Despite all this, there are some reasons to think that the current crisis at Shell may not in the end amount to another Enron. At the defunct energy trader, the bosses made a long habit of enriching themselves at the expense of the company's ordinary employees and shareholders. In contrast, whatever his other errors, Sir Philip was not lavishly paid. His total compensation was much smaller than that of his rivals at BP and Exxon Mobil. The incentive to cheat by fiddling the books seems (at least on current evidence) not to have been as strong as at Enron either: it is reported that only a tiny fraction of the relevant Shell managers' pay depended on the booking of oil and gas reserves, although the SEC may now examine this.

Not quite a shell game



More importantly, Shell's shifting of reserves (from “proven” to “probable”) simply cannot be compared with the phantom profits and bogus assets booked by Enron. That is because the oil and gas actually still exists, and Shell still owns them as real, usable assets. The shift in category means that they are not close enough to commercialisation for Shell to consider them, under SEC rules, as “proven.” However, experts say that “probable” assets are also very likely to get to market—just not as quickly as proven ones. Derek Butter of Wood Mackenzie, an industry consultancy, goes further: the firm's bungled recategorisation, he insists, in “no way changed our view of Shell's commercial reserve potential”. Most investors seem to be taking the same view. After an initial drop of 8% on the news of the restatement of reserves in January, Shell's shares have fared rather well (see chart).



How could that possibly be, given the SEC's definition? Mr Butter thinks that the narrow focus of the SEC and some investors on proven reserves may be misleading He describes the “2P” measure (proven plus probable) as “the company's best guess on what will be produced”. It is, he insists, a better indicator of a firm's underlying valuation than proven reserves alone. On that argument, Shell's “recategorised” reserve position still looks decent (see chart). Wood Mackenzie points approvingly to Canada and Australia, where firms typically disclose the 2P measure.

Even critics think that the current media frenzy over reserves may miss the mark. Eric Knight of Knight Vinke Institutional Partners, an investment fund (partly owned by the CalPERS pension fund) that holds Shell shares, has been pushing the firm hard to reform its corporate governance. Still, he thinks today's focus on proven reserves that can get to market quickly reflects a short-termism among investors that is inappropriate for a sector that is more akin to slow-and-steady utilities than to “growth” stocks.

Even if there has not been an Enron-style looting of Shell, there are two important lessons already from this affair. The first is that Shell needs to do much better in the future at finding new hydrocarbons. Though its 2P figure is decent, the firm still lags its chief competitors—and risks falling further behind them. As one rival oil and gas executive put it, “The problem is not the downward revision—we all ‘debook' every year, but we just book even more in new reserves. The fundamental problem at Shell is that it isn't replacing reserves.” For this, analysts blame a combination of bad luck, under-spending and outmanoeuvring by BP and Exxon for Shell's poor upstream performance.

The second lesson is that the company must become much more transparent. This is a general problem for the entire oil industry, which rarely discloses its accounts in any detail. Such habits are now likely to change. Oilmen are talking of embracing independent audits of reserves and other voluntary measures designed to head off onerous new regulations.

The firm with the greatest need for reform at the top, however, is Shell. As the scale of any misstatement or deception becomes clear, further heads may roll. More important will be structural reforms to the unwieldy ways in which the company's two parts—Royal Dutch and Shell—are cobbled together. This awkward structure weakens the chief executive, argues Mr Knight, and “fosters a lack of accountability.” Mr Knight says that he was lecturing Sir Philip on precisely this topic just days before Sir Philip got the sack.

Yet even Mr Knight, a crusader for corporate governance, defends Shell thus: “There's no black hole, assets haven't disappeared or been misappropriated.” The real damage, he says, may be to the firm's once-stellar reputation. Whether or not Shell's bosses made an honest mistake in booking those four billion barrels of oil now matters less than how they handle what has happened.

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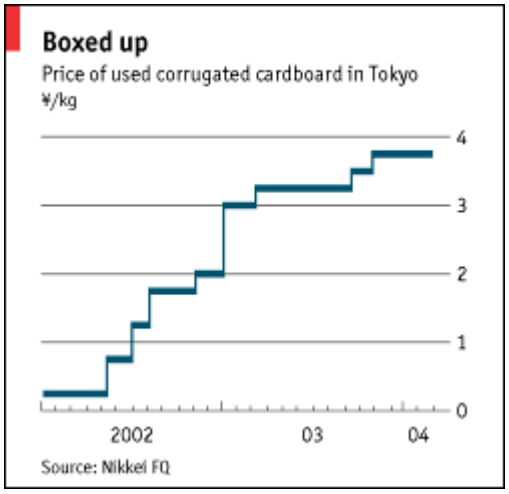
Commodity prices in Japan

Boxed out

Mar 11th 2004 | TOKYO
From The Economist print edition

The rising price of cardboard

IN JAPAN, China's insatiable demand for raw materials is now endangering the most vital commodity in retailing: the cardboard box. Once blamed for exporting deflation to Japan, China is now charged with causing the recent surge in the prices of nickel, plywood and other commodities. Japanese electric-furnace steelmakers, who complain of scrap-metal shortages, are being forced to cut production. So is the cardboard-box industry, as its basic input, used cardboard, is now in short supply.



Recyclers, who go around collecting used cardboard, are doing fine business. Waste-paper merchants now offer 15 times more for the stuff than two years ago (see chart). Yet these merchants currently export a third more than in 2001, as waste-cardboard exports to China fetch some 20% more than at home.

Japanese cardboard-makers are reluctant to match these prices and have opted to lower production instead. They have found it hard to pass the extra costs on to their customers swiftly, partly because they sign contracts for bulk orders. Still, after another hike in procurement costs last autumn, the Japan Corrugated Association, the industry body, called on its members to start raising cardboard-box prices.

All this is creating a flurry on the high street. “These days, the subject of cardboard-box prices always comes up at fashion-industry gatherings,” says one clothes-maker. Catalogue retailers, food manufacturers and drinks suppliers are also fretting. Ordering boxes made of thinner cardboard may be one solution. Environmentally friendly companies, which had already begun switching to reusable plastic boxes, suggest that higher cardboard prices could accelerate the trend.

Local governments, which collect waste cardboard along with other sorts of rubbish, are also affected: they find private collectors now swipe the stuff before they arrive. One district is fighting back. From March 10th, anyone stealing used paper from public garbage-collection sites in Setagaya, Tokyo, can be fined up to ¥200,000 ($1,800).

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Asian airlines

Having fun and flying high

Mar 11th 2004 | SINGAPORE
From The Economist print edition

Tony Fernandes is proving that there is a market for budget airlines in Asia

Get article background

“THERE'S a new girl in town. She's twice the fun and half the price.” Coupled with pictures of nubile flight attendants, the suggestive slogan fills newspapers all over stick-in-the-mud Singapore. It is the latest advertising campaign for AirAsia, the continent's answer to Europe's Ryanair and JetBlue of America.

When Tony Fernandes, AirAsia's chief executive, recently announced a new joint venture, he made sure he was photographed in front of the headquarters of Singapore Airlines, just to goad his rival. “You've got to have fun once in a while,” he says, echoing his own tag line. Like his friend, Sir Richard Branson of Virgin, Mr Fernandes has turned himself into his company's most effective marketing tool. Just 38, he sports a trademark red baseball cap, fondness for playing drums and an unconventional background—he is part Goan, part Malay-Portuguese and he used to make music videos for Virgin.

Sceptics have long argued that, when it comes to air travel, Asia is different from America and Europe. The élite will insist on being pampered on board and happily pay for it. And Asia's protected national markets, long distances and paucity of cheap, secondary airports means that prices remain out of most people's reach.

Mr Fernandes is proving such thinking wrong. His airline was founded on the premise that Asians, even rich ones, like a bargain as much as anyone else and that ruthless attention to costs can make ticket prices affordable for almost everybody. Timothy Ross, airlines analyst for UBS, argues that the region's lower average incomes should boost rather than restrain the appetite for cheap fares. Bargain prices, such as AirAsia's 499 baht (about $13) deal between Thailand and Singapore, are helping the airline expand the market.

The target consumer base for budget airlines is also enormous: 500m people live within three hours of AirAsia's hubs in Kuala Lumpur and Bangkok, more than Western Europe's entire population. And the boost to local tourism in towns served by low-cost airlines is so great that other barriers to entry are proving relatively easy to get around. To avoid the restrictive sovereign air-service agreement between Thailand and Malaysia, for example, AirAsia has set up a local joint venture with Shin Corp, the family company of Thaksin Shinawatra, the Thai prime minister. Secondary airports, such as Macau, are virtually begging the company to set up a base there by offering to reduce landing fees.

Experience in other countries shows that, once the rules start to relax, growth is bound to take off. In America, budget carriers saw their passenger numbers rise 48% annually in the five years following deregulation, compared with 4% for traditional airlines. The low-cost carriers now have roughly a third of the market. In Australia, the no-frills airline Virgin Blue took only three years to win a 30% market share.

AirAsia has similarly been a soaring success. Starting with two planes bought from a Malaysian conglomerate in late 2001, the airline will have 30 by the end of 2004. It operates 19 routes across Malaysia, recently started Singapore-Thailand flights and, from next month, starts flying to Indonesia. The company has no debt and has been profitable from the start. Its profit margins (before interest, depreciation, amortisation and aircraft leasing costs) at around 35% are the highest in the world, according to Michael McGhee, CSFB's airline analyst. For the current half-year,AirAsia expects to make a profit of 42m ringgit ($11m), more than twice what it made in the entire previous year. No wonder bankers seem to be falling over themselves to help Mr Fernandes take the company public, probably later this year.

His success is spawning a host of copycat carriers. In the past seven months, the number of budget airlines either flying or about to launch has doubled from seven to 15. Most are spin-offs from traditional airlines such as Thai Airways' Nok and Tiger Airways, run by Singapore Airlines. These tend to have neither the cost discipline nor the culture of genuine budget start-ups. Thai Airways, for example, has hired an advertising executive to run Nok who seems to be a pale imitation of Mr Fernandes, both in his marketing and operational ability. Eric Kohn, deputy chairman of dba—a company that did poorly as a low-cost offshoot of Britain's BA in its previous incarnation—believes that older airlines cannot easily make such projects work: “People at big airlines don't have accountability or a focus on costs. It is a lot easier to start an airline from scratch than to take a legacy airline and make a profit.”

As Mr Fernandes is proving. He has been helped by timing. During the air-travel slump that followed the September 11th terrorist attacks, AirAsia was able to negotiate sweet deals with aircraft manufacturers, airports and other suppliers. However, Mr Fernandes is keen to be more than just a flamboyant entrepreneur. “I am there at 2am studying the plane's engines. I know the price of every part,” he says. Guided by his operations chief Conor McCarthy, pinched from Ryanair, Mr Fernandes is obsessive about costs.

Low-cost carriers require such obsession. Drew Magill, director of market analysis at Boeing Commercial Airplanes, estimates that low-cost airlines earn around 45% less revenue per mile than full-service airlines (which can charge more for long-haul flights) and so need 50% lower costs. AirAsia achieves this by taking bookings via the internet rather than through travel agents; charging for meals; and having only one type of aircraft—Boeing 737s—to save on training overheads. The crew help to clean the aircraft to shorten turnaround times. But Mr Fernandes has gone much further, persuading his pilots, with whom he regularly shares the company profit-and-loss account, not to take off at full throttle and to fly their aircraft to cruising altitude immediately—saving some 26% on fuel costs, an airline's second biggest overhead. At 2.5 American cents per available seat-kilometre, AirAsia's operating costs are the lowest in the industry, calculates UBS.

Mr Fernandes's biggest challenges will be to manage growth, and to avoid both a destructive price war and the temptation to enter markets with fundamentally different economics, such as long-haul flights. For now, his lead over competitors looks unassailable. For Mr Fernandes, at least, flying should remain fun.

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Sumantra Ghoshal

Leadership's loss

Mar 11th 2004
From The Economist print edition

Management literature has lost a prolific and creative writer

IT WAS, says Laura Tyson, the dynamic American dean of the London Business School, typical of Sumantra Ghoshal that his advice on how to run an away day for the senior academic staff was the most helpful and constructive she received. Mr Ghoshal, a management guru who died suddenly at the age of 55 last week, was not just a man of boundless energy and inventiveness; he also married the theoretical and the pragmatic in a way that is rare in the world of management literature.

Alas for the next book

His background was unusual. A physicist from Calcutta, he was also a student journalist with a passion for theatre. He began his career at Indian Oil, and so came to management studies relatively late and with a firm grounding in corporate life. He arrived at the Massachusetts Institute of Technology in 1981, discovered management studies, and ended up taking not one but two doctorates in the subject simultaneously, at MIT and Harvard Business School.

At Harvard he met Chris Bartlett, then embarking on his classic work on “Managing Across Borders”. Soon, the two were collaborating. Mr Bartlett remembers “a passionate engaged argument, in which Sumantra would pace around the room smoking cigarettes and jotting things down on a whiteboard”. It was the beginning of an intense and productive intellectual partnership that continued after Mr Ghoshal went on to INSEAD, Europe's best-known business school. There, he continued to research and write about the changes that globalisation was inflicting on multinational corporations. “Strategically, companies knew what they had to do,” Mr Bartlett recalls. “A lack of organisational capability was the main impediment.”

In the 1990s and after Mr Ghoshal arrived at the London Business School, he grew increasingly interested in the broader changes occurring in companies, a theme of “The Individualised Corporation”, published in 1997. Recently, he thought deeply about corporate leadership. Interviewed last autumn for *The Economist*'s survey on leadership, he reflected that the task involves “continuously engaging the intellect of the organisation to create simple clarities to guide choice and to deal with inherently conflicting demands”. He added, “You need the ability to inspire others, emotional resilience. But we often underestimate the importance of judgment issues, in the face not just of the unknown, but the unknowable.”

It would have been a good text for another classic volume, combining understanding of real management issues with a solid grasp of theory.

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David Beckham

Real money

Mar 11th 2004
From The Economist print edition

First launch your logo

AP

The beautiful business

FROM Fred Perry to Tiger Woods, star endorsements have boosted the sales of sports goods. Now David Beckham, captain of the England football team, has unveiled his new line—or rather four wavy lines and a circle. Mr Beckham has his own logo, a stylised silhouette of himself taking a free kick. It will adorn goods made by Adidas, a German manufacturer, whose boots grace Mr Beckham's valuable feet.

Beckham-branded kit looks sure to sell. The pin-up footballer's image is inescapable (even in soccer-shy America). His club, Real Madrid, has sold over 1m shirts with Mr Beckham's name and number, 23. These account for 50% of the team's replica-shirt sales, and have already recouped much of the £24.5m Real paid Manchester United for Mr Beckham's signature last June.

It is said that Mr Beckham chose the number 23 because he idolised Michael Jordan, who had worn it for the Chicago Bulls basketball team. (His first choice was 7, the number he had had at Manchester United, but another Real favourite already had it.) Idolised his sporting ability, or his business acumen? Mr Jordan too has his own logo—a silhouette of himself scoring a basket—and Nike's Air Jordan shoes netted sales of $100m in their launch year.

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Wireless telecoms

Wi-Fi's big brother

Mar 11th 2004
From The Economist print edition

Is WiMax a promising new wireless technology, or just a load of hot air?

IF YOU find it difficult to get excited by the details of a new wireless-data protocol, you are not alone. So what explains the current buzz in the telecoms and computer industries surrounding WiMax, a high-speed, long-range wireless standard? This week investors pumped $20m into Aperto Networks of Milpitas, California, one of several firms planning to launch WiMax products this year. Heavyweights such as Intel, Nokia and AT&T are lining up behind the standard. Sean Maloney, the head of Intel's telecoms division, says it will put “the next 5 billion users” on the internet. But whereas WiMax has promise, says John Yunker, an analyst at Pyramid Research, it is currently surrounded by much confusion and “a ton of hype”.

Indeed, all this is strongly reminiscent of the fuss over Wi-Fi, a popular technology that uses a small base-station plugged into a high-speed (broadband) connection to link laptops within 50 metres or so to the internet. Wi-Fi is undoubtedly useful—in 9% of American households, for example—but it is used mainly to provide wireless internet coverage inside homes, offices and schools. Few people seem to be prepared to pay for fee-based Wi-Fi access in “hotspots” in airports and railway stations, and schemes to cover whole cities with Wi-Fi and make expensive third-generation (3G) mobile-phone networks redundant have got nowhere. But whereas Wi-Fi provides coverage within a small hotspot, WiMax, which has a maximum range of 30 miles, could provide blanket coverage. It could, as a result, prove to be a far more useful, and disruptive, technology.

The initial aim of WiMax is modest: it will ensure compatibility between different vendors' fixed-wireless broadband equipment, which provides fast wireless-data connections between fixed points over long distances. This ought to help to expand the market for fixed-wireless access, since operators will no longer have to worry about being locked into vendors' proprietary technologies, and economies of scale will bring prices down. That is good news for people in rural areas, for whom broadband access—via cable networks or supercharged telephone lines—is often unavailable. Subscribers simply fix a WiMax receiver to the outside of their homes and plug it into a Wi-Fi base-station, or directly into a PC. In Britain, BT is already testing WiMax in four rural areas.

Another promising area for WiMax is for use as a wireless “last mile” in the developing world, since it can carry voice calls using voice-over-internet protocol. Instead of laying copper cables, network operators would set up far less expensive WiMax towers, and then install WiMax telephones in subscribers' homes. Internet access could also be provided. Mr Maloney says 20 or 30 operators in developing countries have expressed interest.

So far, this all sounds sensible. The cause of the excitement is what might happen next. At the moment, WiMax is a fixed technology. But if the technology can be scaled down to fit inside mobile devices, says Mr Yunker, “that changes everything”. Intel, the world's leading chip-maker, plans to make WiMax support a standard feature of most laptop computers starting in 2006 or 2007. By then, a mobile version of the WiMax standard is expected to have been approved.

It would then be possible to provide fee-based Wi-Fi-like coverage to mobile users over wide areas. This might have far more appeal than a service limited to a few hotspots; it would, for example, work in a taxi. Mobile WiMax could also be used in mobile phones, allowing fixed operators that have built WiMax networks to transform themselves into mobile operators. (No wonder BT, which sold its mobile-phone arm, is interested.)

Not everyone is convinced, however. According to Brian Modoff, an analyst at Deutsche Bank, Intel “has been drinking too much of the WiMax Kool-Aid”. For one thing, equipment vendors may be reluctant to

push WiMax gear, since it could cannibalise sales of more lucrative 3G equipment. And operators are playing wait and see; they are reluctant to commit themselves until the technology is proven. Furthermore, few of them have the spectrum needed to deploy WiMax.

There is also opposition from some people in the mobile-telecoms industry. Turning WiMax from a fixed into a mobile standard is a crafty trick, they argue, since a separate mobile broadband standard, known as 802.20, is already in development. But the momentum of WiMax means 802.20 could be a dead duck, says Zvi Slonimsky of Alvarion, the leading maker of fixed-wireless gear and a strong backer of WiMax. Proponents of 802.20 retort that it will require less spectrum than WiMax, and will work in fast-moving cars and trains, which WiMax will not. Besides, mobile WiMax is still science fiction, notes Ronny Haraldsvik of Flarion, an equipment maker that is the leading advocate of 802.20. “The industry doesn't serve itself well by hyping something it can't deliver,” he says. Amid the hype and the confusion, WiMax is evidently worth keeping an eye on. Watch this airspace.

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Italian shoes

The Ferrari of footwear

Mar 11th 2004 | MONTEBELLUNA
From The Economist print edition

Sweaty feet turned Mario Moretti Polegato into an innovator

WHAT does it take to break into a mature business in a saturated market already awash with brands? For Mario Moretti Polegato it was drive, determination and an infatuation with sweaty feet. Geox footwear, a brand he launched eight years ago to bring a high-tech solution to the problem of malodour and clamminess around the toes, last year saw sales accelerate to 6.5m pairs, from 1.4m in 1998. He expects to sell 10m pairs of shoes this year—more than half of them outside Italy.

That is an outstanding rate of growth by any measure, but then Mr Polegato is, after all, Italian, and Italy's footwear business has long been a world leader. Geox is based in Montebelluna, the centre of a big shoe-making area north-west of Venice.

Pooh!

Mr Polegato's ambitions are global. His shoes are sold by a number of retailers, but by the end of this year Geox will have expanded its own chain of shops to around 150 in Italy and 100 overseas. It owns about a quarter of these and franchises the rest. This month the company is opening its first own-brand store in New York. It already has shops in London and Paris.

Behind all the glamour, the force propelling the business remains Mr Polegato's obsession with the idea that sweaty feet can and should be avoided. Such conviction can come only from personal experience. Mr Polegato was out jogging in Reno, Nevada, during a hot summer 12 years ago and wanted to keep his feet cool. Cutting a number of holes in the soles of his trainers did the job, but it was clearly not a long-term solution—especially if he were to hit the streets in a rainy city. So he came up with a membrane that fitted between the sole and the foot and stopped water from getting in through the holes, but allowed the vapour from perspiration to get out.

With plenty of patents and hoping to profit quickly from his idea, Mr Polegato knocked on the doors of some of the biggest names in the leisure-footwear business, such as Fila, Nike, Adidas and Timberland. None was interested. Some firms do now put holes in the soles of their shoes, but not with Mr Polegato's magic membrane. He is aghast at that: “Can you imagine using a public lavatory while wearing shoes with holes in them?”

Having failed to get a big producer to take up his idea, he decided to do it himself. He recruited five people to help him develop his shoes and this led to a company that now employs 2,800 directly, and several thousand indirectly through sub-contractors. Research and design is based in Italy, but production is carried out in Slovakia and Romania, where wage costs are lower. His privately held company's net sales more than doubled between 2000 and 2003, leaping from €92m ($85m) to €250m, while net profits grew from €3m to €27m. Mr Polegato expects to make a 12% post-tax profit on sales of €350m this year.

The threat to any fashion business such as Geox, of course, is a sudden shift in tastes. This can be an especially potent threat if rapid expansion has spread the energy and conviction of its founder a little too thinly. Mr Polegato now plans to diversify into clothing. Again, the membrane plays a crucial part. Mr Polegato intends to use strips of the fabric in, say, jackets to allow sweat to escape from the shoulders, which is where heat and humidity collect. He has a vision of a world without under-arm deodorants. Obsessive, perhaps, but then many inventors are. And unlike most of them, Mr Polegato has at least

made his idea run with his own business—and in the process is making himself a lot more money.

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Face value

Tigers, termites and tenacity

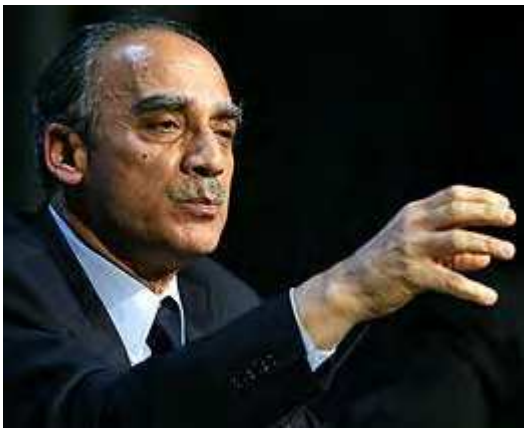
Mar 11th 2004
From The Economist print edition

As an election looms, Arun Shourie, India's privatisation minister, beats the drum for market reform

Get article background

THESE are glory days for Arun Shourie. As the public face of the Indian government's privatisation programme, he is basking in the success of the Indian stockmarket's largest-ever public share issue. Its offer of 10% of the shares in ONGC, an oil exploration and production company, was the last of a hectic spate of six privatisation issues. The offering was fully sold within minutes, and when it closes on March 13th will raise some 100 billion rupees ($2.2 billion). This is a godsend for a government struggling to meet its fiscal-deficit target ahead of a general election on April 20th. Just as important for Mr Shourie is to see another lurch forward in India's erratic economic liberalisation.

AFP



The success of the sales matters. It will encourage boldness in other areas—"like drum-beaters bringing out the tiger," as he puts it. It will also burnish Mr Shourie's reputation. Like reform itself, the minister has suffered his share of setbacks. One came last September, when the Supreme Court ruled that the privatisation of two state oil companies required a vote in parliament. This had the effect of stalling his favoured method of disposing of the government's assets—selling control to strategic investors, rather than minority chunks to the market. At the time, Mr Shourie vented his frustration by saying the ruling showed the difference between India and China: "In India, everybody has a veto."

Mr Shourie was a well-known author and journalist before he was head-hunted into the unelected upper house of India's parliament by the Bharatiya Janata Party (BJP), which heads India's ruling coalition, in 1998. His last book, "Courts and their Judgments", complained about the way India's law courts have extended their roles, because of the shortcomings of India's other institutions. His next one will examine how the internal processes of government have come to resemble the termites that ate away at a tree in his garden, leaving little but a piece of bark that now decorates his book-lined ministerial office. It will draw on his experience of trying to practise what he used to preach as an economist at the World Bank, since he became minister of "disinvestment" in 2001.

Mr Shourie likes to cite a study of the Kuomintang's China in 1936: "administration degenerates into mere correspondence." In India, he says, every file probably needs the signature of 20 senior civil servants, any one of whom can stop its progress. Take his struggle to sell a government-owned hotel chain. He found that not one of the 30-odd hotels in the group had the title deed to its lands. Demerging the company to sell the properties individually needed the consent of all the employees, who held 0.5% of the equity. Securing a list of its debts took six months. One Delhi hotel was embroiled in a 15-year lawsuit with another arm of government about its ground rent. Mr Shourie recalls his exasperated plea to his civil servants: "It must be written in some bloody document."

But he boasts of a tenacity nurtured in his days as a crusading editor of a newspaper known for its dogged pursuit of scandals. "I am a graduate of the *Indian Express*; we exhaust the other fellows." Victims of this persistence include not just civil servants and judges, but politicians. After about 20 parliamentary debates on privatisation in the past four years, the most recent were adjourned for want of a quorum.

As this implies, Mr Shourie sees the politicians themselves as obstacles to getting things done. “The quality of many who people our public life—that is not democracy, it is disarray, it is free-fall.” Yet he refuses to use India's democratic system as an excuse for the country's painfully slow pace of economic progress over the past 20 years compared with China. “Governance”, he argues, “is not golf: that we are a democracy does not entitle us to a handicap.”

The pending tray

There often seem to be more stops than starts in the Indian reform process. But much has been achieved since 1991, when the old system of industrial licensing and import controls was overturned in favour of gradual liberalisation. The industries that form his other portfolio—communications and information technology—are cases in point. The government's hands-off approach to the IT business has allowed it to become a world-beater. And in telecoms, liberalisation has sparked a boom—India is adding nearly 2m mobile-phone connections a month.

Yet even there, Mr Shourie is smarting from a setback: his failure in January to gain cabinet approval to open the telecoms sector to majority foreign ownership. He ran into resistance from a wing of his party that is suspicious of globalisation. Mr Shourie and other unelected economic liberals rely heavily on the support of the prime minister, Atal Behari Vajpayee.

Mr Shourie hopes that the next government will continue reforming—even if Congress, the main opposition party, wins. Congress launched the reforms in government, but now often seems opposed to them. Everybody opposes reform in opposition, argues Mr Shourie, but in office, finds it the only option. The priorities now are to tackle the deficit, by cutting government subsidies, and to devise new formulae for the distribution of funds between states and the federal government. At present, non-performance is rewarded and success penalised.

But Mr Shourie is also known for his outspoken backing of many of the “Hindu nationalist” issues identified with the BJP. This makes him the object of much anger from India's Muslim minority. Mr Shourie, however, claims there is convergence here, too, as any party in power will have to “accommodate itself to the diversity of India”. Those who fear the BJP's communal tendencies are merely in remission will find this unconvincing. More persuasive may be Mr Shourie's argument that the only way the BJP can win a consensus for its Hindu demands is to deliver efficient government.

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Correction: McKinsey

Mar 11th 2004
From The Economist print edition

Last week, we said that McKinsey's record in Switzerland was “decidedly mixed”. We meant the record of McKinsey alumni. Sorry.

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Global economic inequality

More or less equal?

Mar 11th 2004
From The Economist print edition

Panos

Is economic inequality around the world getting better or worse?

CRITICS of capitalism are convinced that the gap between rich and poor is widening across the world. For them, the claim amounts almost to an article of faith: worsening inequality is a sure sign of the moral bankruptcy of "the system". Whether rising inequality should in fact be seen as condemning capitalism in this way is a question worth addressing in its own right. There are reasons to doubt it. But it would also be interesting to know the answer to the narrow factual question. Is the familiar claim that capitalism makes global inequality worse actually true?

Unfortunately, this apparently straightforward question turns out to be harder to answer than one might suppose. There are three broad areas of difficulty. The first is measuring what people, especially the poorest people in developing countries, consume. The second is valuing consumption in a way that allows useful comparisons to be made across countries and over time. And the third, in effect, is settling on an appropriate basis of comparison. Which matters more, for instance: whether inequality is widening among nations, or whether inequality is widening among all the people of the world, regardless of which country they happen to live in? Judging any claim about global inequality is impossible without a clear understanding of how the researchers concerned have dealt with all three questions.

The third deserves to be emphasised at the outset. A thought-experiment reveals how easy it is to get muddled. Suppose it is true that inequality measured across countries is widening. (In other words, the gap between average incomes in the richest countries and average incomes in the poorest countries, measured without regard to changes in population, is growing.) Also suppose that inequality is worsening within every individual country. Given that cross-country inequality is widening, and that within-country inequality is getting worse as well, it would have to follow that global inequality, measured across all the world's individuals, is rising too, would it not? Actually, no. Even if those first two assumptions were true, global inequality measured across all the world's individuals might well be falling.

How so? Simply add a third assumption: namely, that a group of poor countries accounting for a big share of all the poor people in the world was growing very rapidly. Suppose, for instance, that average incomes in India and China were growing much faster than average incomes in the rich industrial economies. Then it could be true that inequality was widening within every country, including within China and India themselves; and also that the gap between the very poorest countries (of sub-Saharan Africa) and the richest (Europe and the United States) was widening; and yet, at the same time, that inequality measured across all the individuals in the world was falling fast, because average incomes in the two most populous poor countries were rapidly going up.

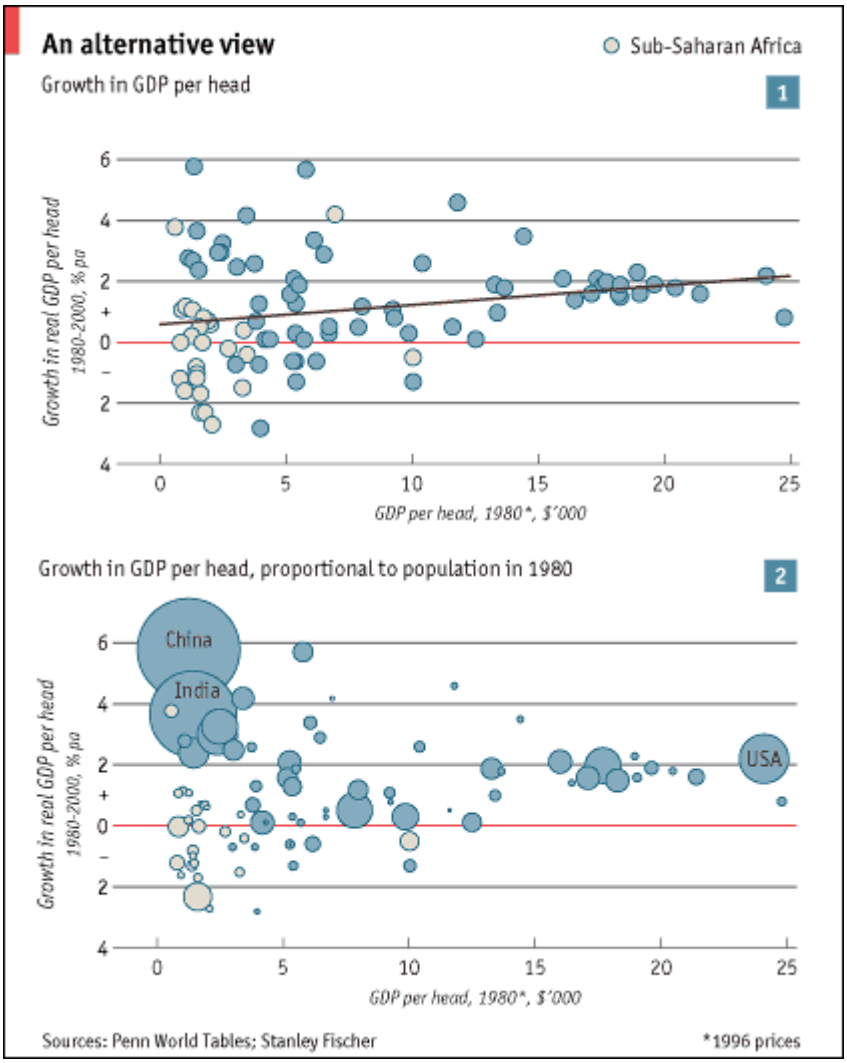
It so happens that average incomes in India and China are going up extremely rapidly. Without knowing

anything else, one should therefore be sceptical about all the claims that are so confidently made about rising “global inequality”.

Poor visibility

Attentive readers of *The Economist* will remember seeing before the panel of charts shown below. (They first appeared in a presentation given at the beginning of 2003 by Stanley Fischer, former deputy chief of the International Monetary Fund, to the American Economic Association. We wrote about them in this article of August 23rd last year.) We make no apologies for showing them to readers again: at a stroke, they cut through much of the statistical fog surrounding this subject.

In both charts, the horizontal axis shows the average level of GDP per head in 1980, and the vertical axis shows the rate of growth in inflation-adjusted GDP per head between 1980 and 2000. For the moment, concentrate on chart 1, which shows each country as a single point.



If it were true, on average, that incomes in poor countries grew faster between 1980 and 2000 than incomes in rich countries, then the points in chart 1 would tend to lie on a downward-sloping line. In that case, one would say that the poor countries were on average catching up—and that global inequality measured across countries was trending downwards. In fact, as the first chart shows, poor countries are not on average catching up. A line of best fit drawn through the points actually slopes upwards, implying that the poor are falling behind, and that cross-country inequality is getting worse.

But now look at chart 2. This plots the same countries as circles with areas drawn in proportion to population. India and China stand out, both by virtue of their vast populations and also because their growth record in the 1980s and 1990s was so much better than the poor-country average. A population-weighted line of best fit drawn through this second chart would indeed slope downwards, implying both catch-up and narrowing inequality.

In short, once you take account of the fact that China and India have performed so well since 1980, and especially since 1990, together with the fact that these two countries account for such a big share of all the world's poor, it is difficult to stay as pessimistic about global trends in poverty and inequality as the critics of global capitalism wish to be. In effect, these critics must blind themselves to the extra information in the second chart.

Unfortunately, however, Mr Fischer's admirable diagrams say nothing about poverty as such: they contain no information about how many of China's people, or America's or any other country's, are poor. And they say nothing about whether growth in any particular country is good for poor people living there (of course, growth raises incomes on average by definition). To look more carefully at these questions one must peer through a cloud of statistical and econometric chaff.

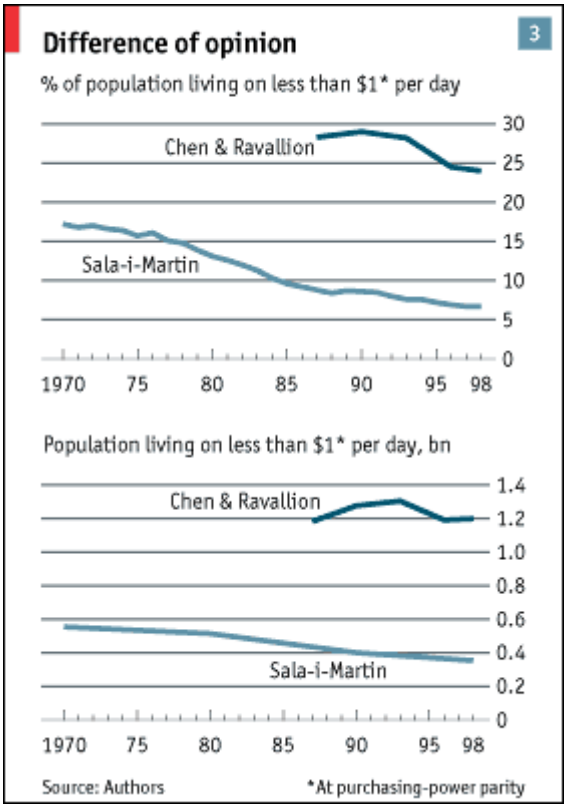
Measuring matters

Much of the frequently acrimonious debate among economists about global poverty and inequality turns out to revolve around a single technical issue: is it better to measure consumption (and hence living standards) using data drawn from national accounts or data drawn from household surveys? The two sources ought to marry up. In fact they differ systematically, and by a wide margin. Worse, *growth* in consumption, not merely levels of consumption, differs persistently according to which source is used. National-accounts data tend nearly always to give a much more optimistic view of trends in poverty than do household-survey data.

Accordingly, in a recent review of the literature* by Angus Deaton of Princeton University (Mr Deaton is perhaps the only economist at work in this area who is acknowledged by all sides both as authoritative and as having no ideological axe to grind) two sets of studies are contrasted. The first draws mainly on national-accounts data, the second on household surveys. Their results are at odds.

Work by Surjit Bhalla, by Xavier Sala-i-Martin, and by Francis Bourguignon and Christian Morrisson shows rapid—indeed historically unprecedented—falls in poverty during the 1980s and 1990s, the new golden age of global capitalism. According to these papers, the proportion of the world's people living on less than a dollar a day (inflation adjusted) has fallen so quickly that the decline has been enough to offset rising population in the developing countries. In other words, the number of people in poverty has been falling not only as a share of the world's population but also, remarkably, in absolute terms.

Mr Sala-i-Martin's calculations, for instance, show that the proportion of the world's people living in acute poverty (on less than a dollar a day) fell from 17% in 1970 to 7% in 1998; the proportion living on less than $2 a day fell from 41% to 19%. The absolute headcount of global $1-a-day poverty fell, according to the same estimates, by 200m (see chart 3); and the count of $2-a-day poverty fell by 350m. Mr Bhalla, who finds the sharpest drop in poverty of these authors, wryly states that in 2000 when the United Nations (UN) announced its Millennium Development Goal on poverty—to bring the number of people living on less than a dollar a day in 2015 down to half the level in 1990—the goal had already been achieved.



But this is not at all the picture that emerges from the second, and far more widely cited, set of estimates. Calculations by the World Bank, using direct surveys of households, carry the official imprimatur of the UN, which uses them in monitoring progress towards its Millennium Development Goal on poverty. And they seem to show relatively little reduction in poverty over recent decades.

A paper by Shaohua Chen and Martin Ravallion of the Bank lays out the thinking behind the Bank's estimates. The authors put the proportion of people living on less than a dollar a day at 28% in 1987—far higher than the corresponding figure according to Mr Sala-i-Martin's work. By 1998, the proportion in poverty had in fact fallen (something which you might not guess if you listened only to those who deplore the wickedness of global capitalism), but only to 24%. Compare that with Mr Sala-i-Martin's estimate of just 7%.

That discrepancy draws attention to the danger of focusing too much on the dollar-a-day threshold. That is a crowded part of the global income distribution. For this reason alone, switching from one data source to another, or moving the official poverty line from one level to another, is apt to have a large effect on the figures. This underlines the importance of not regarding any of these numbers as holy writ.

Still, the question remains, why are the differences so big? Several factors are at work. The World Bank attempts to measure “consumption poverty”, as opposed to “income poverty”. To the extent that poor people manage to save, their consumption will be less than their income, and so there will be more poor people on the Bank's definition. Also, the Bank expresses its poverty ratios as proportions of population in the developing countries; Mr Sala-i-Martin, for instance, uses global population; the effect is to make Mr Sala-i-Martin's estimates, other things equal, smaller than the Bank's. Country samples also vary from study to study. And on top of all this comes the effect of basing estimates on national accounts rather than on household surveys.

It is revealing to consider why, according to the Chen-Ravallion study, poverty fell relatively slowly on their household-survey measure. It was not because of an increase in within-country inequality—in other words, brisk growth in average consumption was not being hogged by the better off. It was because growth in average consumption was slower than what growth in national incomes, as measured in the national accounts, would lead you to expect. Growth in consumption per head across the countries in the Chen-Ravallion sample was less than 1% a year between 1987 and 1998, according to the household surveys. Growth in consumption per head according to the national accounts was more than 3% a year.

Mr Deaton notes that a plethora of new data has so far failed to resolve this issue “because the new sources are mutually contradictory”. Summing up, he states: “If the surveys are wrong, and the national accounts right, either inequality has been widening in ways that our data do not appear to show, or poverty has been falling more rapidly than shown by the dollar-a-day counts. If the surveys are right,

there has been less growth in the world in the 1990s than we are used to thinking."

It would be a mistake to presume that either source of data is better in principle. Surveys are famously prone to error because of bad or fluctuating design, discrepancies in samples and poor execution. But national accounts have drawbacks as well, especially in poor countries. For instance, they fail to capture some sorts of non-market income and consumption. This makes them prone to understate the consumption of the poor, but also to overstate the growth of consumption of the poor as incomes rise and as more activities fall within the scope of market transactions.

Take your pick

Still, most of the discrepancy between the survey estimates and the national-accounts estimates—with the surveys persistently pessimistic on trends in poverty—is probably due to the fact that as people get better off, they are less likely to respond (accurately, or at all) to surveys. As a result, as countries get richer, the ratio of "survey consumption" to "national-accounts consumption" is usually found to fall. Consistent with this, the ratio of the two measures is highest in the poorest countries.

Mr Deaton argues that both sources ought to be used, though combining them properly raises a host of difficult technical issues. Meanwhile, the truth about global poverty and inequality presumably lies somewhere between the extremes suggested by the two methodologies.

One can at least conclude that the official World Bank data, used by the UN and other agencies, are too pessimistic: poverty has most likely fallen faster than these widely cited figures suggest, and possibly fast enough to reduce the global headcount of those living on less than a dollar a day, even as population rises. More accurate answers will require more work to be done. In the meantime, however, the official position on global poverty ought to start, at a minimum, to acknowledge the uncertainty surrounding the figures and, further, to concede that the truth is likely to be better than the official figures say.

Beside the point?

But what of the fear that global capitalism is making progress at the expense of the poor? The true figures would probably be quite reassuring on this—but even if the more pessimistic official figures were correct, it would be worth questioning the conclusions that the anti-globalists draw from them. If poverty was proving as tenacious in the face of growth as the Bank's estimates say, would it make sense to blame global capitalism for that?

Hardly. On any estimate, poverty is at its most impervious in sub-Saharan Africa. Look again at charts 1 and 2. The countries of sub-Saharan Africa are represented by the white circles. These are not just the poorest countries in the world, but also the slowest-growing. Can it be plausibly claimed that these countries are the victims of globalisation? That would be an odd conclusion, given that sub-Saharan Africa's economies are so comparatively isolated from the rest of the world economy—by force of history, circumstance and, to a large extent, the policies of their own and other governments. Sub-Saharan Africa plainly suffers not from globalisation, but from lack of it. The focus of attention should be on how to extend the benefits of international economic linkages to the region. Removing every rich-country barrier to trade with these countries would be an excellent place to start.

By contrast, India and China are showing how great the benefits of international economic integration can be. Neither country is an exemplar of free-market capitalism—far from it. But it is undeniable that both countries have consciously chosen to seize the opportunities afforded by the global economy, through both trade and foreign investment. As incomes surge, while the living standards of the poorest improve more modestly, if at all, inequality within both countries may well be rising. The gaps between urban and rural incomes, especially, have widened lately.

This may prove a temporary phenomenon. But suppose otherwise; suppose the problem persists. Would any such worsening of inequality entitle one to conclude that India and China had taken a wrong turn these past 20 years? Of course not. Look at Africa to understand that there are worse things than inequality.

* “Measuring Poverty in a Growing World (or Measuring Growth in a Poor World)”, revised February 2004, by Angus Deaton (included extensive further references); “The World Distribution of Income” by Xavier Sala-i-Martin; NBER Working Paper 8933; “Imagine There Is No Country: Poverty, Inequality and Growth in the Era of Globalisation” by Surjit Bhalla, Institute for International Economics; “How Well Did the World's Poorest Fare in the 1990s?” by Shaohua Chen and Martin Ravallion, *Review of Income and Wealth* 47 (3); “Inequality Among World Citizens: 1820-1992” by Francois Bourguignon and Christian Morrison, *American Economic Review* 92 (4).

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America's monetary policy

Overflowing

Mar 11th 2004
From The Economist print edition

Enough liquidity: it is time for the Fed to start raising interest rates

NO ONE expects the Federal Reserve's open market committee, the policymaking body of America's central bank, to raise interest rates when it meets on March 16th. Indeed, a growing number of economists believe rates will remain at 1%, a 45-year-low, at least until the end of 2004. Yet the case for an increase is strengthening.

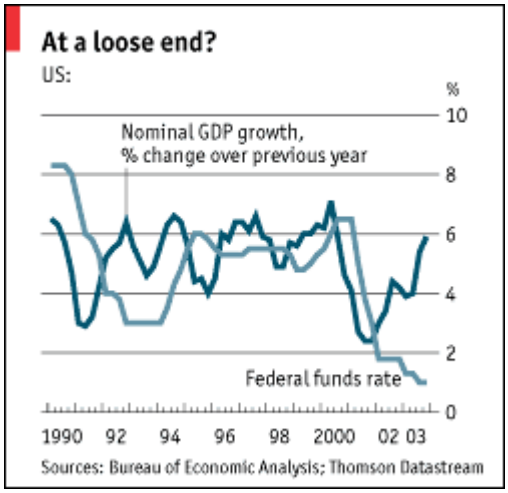
The main reason why the Fed is expected to hold rates is the feeble state of America's labour market (see article). In February, payrolls rose by only 21,000, an unusually low figure for a briskly growing economy. Not only would it be politically provocative to raise rates—especially in an election year—but sluggish jobs growth will hold down wage pressures and hence inflation. Core consumer-price inflation (ie, excluding food and energy) is only 1%, a bit low for comfort, so there appears to be no reason to tighten policy. That is the view of most American economists. More important, it is also thought to be the view of Alan Greenspan, the Fed's chairman.

However, some Fed officials, along with several foreign central bankers, are starting to wonder whether policy is being kept too loose for too long. The Fed was right to cut interest rates immediately after the stockmarket bubble burst; it saved America's economy from a deeper recession and the risk of deflation. But rates cannot stay where they are for ever. Monetary policy is the loosest for 30 years.

There are several ways to test the tightness of monetary policy. One is the level of real interest rates, which are currently around zero (using the core rate of inflation). This is in fact no lower than in 1993, when the Fed also faced a jobless recovery. However, some economists argue that a better gauge is a comparison of interest rates not with inflation but with nominal GDP growth. As a rule of thumb, when rates are above nominal GDP growth, monetary policy is restrictive; when rates are below it, policy is expansionary.

One way to interpret this is to see America's nominal GDP growth as a proxy for the average return on investment in America Inc. If this return is higher than the cost of borrowing, investment and growth will expand. Nominal GDP is rising at an annual rate of 6%, five percentage points above the federal funds rate (see chart). This gap is wider than at any time since the 1970s when inflation took off.

Another useful measure is Goldman Sachs's financial conditions index. This takes account not only of real interest rates, but also of bond yields, the dollar and the stockmarket. In February the index hit its lowest point in the 35 years it covers, implying that monetary conditions are extremely loose.



Level pegging

It is popularly argued that central banks should raise interest rates if inflation exceeds its target, and cut them if inflation falls below, but otherwise keep them constant. But this is wrong. Glenn Stevens, the deputy governor of the Reserve Bank of Australia, neatly explained why in a recent speech focused on his own country. It is, he argued, the level of interest rates that matters most for the stance of monetary policy, not the direction of change. Monetary policy does not stop working when rates stay constant. A low interest rate will continue to stimulate the economy and will eventually produce ever-rising inflation. Apply Mr Stevens's argument to America: even if rates were raised by a full percentage point, monetary policy would still be expansionary.

Once the circumstances that required super-low American interest rates—ie, the risk of deflation—have passed, rates need to rise towards what economists call the “neutral” rate of interest. This is the rate that neither stimulates the economy nor reins it in, but allows it to expand in line with its underlying productive potential, keeping inflation constant. The concept can be traced back to Knut Wicksell, a Swedish economist who a century ago defined the neutral (or, as he called it, “natural”) rate of interest as that earned by fixed capital. If the rate set by central banks is lower, firms will invest more, boosting growth and, eventually, inflation.

America's neutral rate of interest is probably around 5%. While the economy still has spare capacity, interest rates need to be below that rate. But they probably no longer need to be quite so low. It is true that there seems to be little risk of inflation surging in the near future. Higher prices of oil and other commodities, along with a weak dollar, may push up the headline rate of inflation, but wage demands remain moderate. Better still, inflation may stay low because central banks have done a good job in the past: the Fed's reputation is now so strong that households and investors have much lower expectations of inflation than in the past.

Nevertheless, all the liquidity being pumped out by the Fed's lax policy has to flow somewhere. It may not be showing up in conventional inflation, but it could be encouraging asset-price bubbles and excess credit growth. In the fourth quarter American house prices rose at their fastest rate for almost 25 years (see next article); share prices have been booming again; and interest-rate spreads look indecently low as investors desperately seek higher returns, seemingly heedless of the risk.

In recent weeks, Mr Greenspan and other Fed officials have started to send out warnings that interest rates will eventually need to rise, but with no great sense of urgency. In contrast, Stephen Roach, the chief economist at Morgan Stanley, has called on the Fed to raise interest rates immediately by two percentage points. This, he argues, is needed not only to avoid bubbles but also to give the Fed ammunition with which to fight the next economic shock. At current interest rates, the Fed would have no room to cut rates if the economy took a turn for the worse.

Mr Roach's favoured interest rate of 3% would, in theory, still leave policy accommodative. But such a sharp rise could easily cause the next shock, sending the prices of homes, shares and bond prices tumbling. The Fed would do better to act gradually. But it needs to start now.

The Fed faces a difficult choice. A rise in interest rates when employment is barely growing would provoke sharp criticism. If it triggered a slide in share or house prices, recession could even ensue. On the other hand, the longer the Fed leaves rates so low, the greater the risk that asset prices will inflate to unsustainable levels—and the greater the risk of a deeper downturn in the future. In an election year, however, even a policymaker as officially independent as Mr Greenspan is unlikely to inflict short-term pain for long-term gain.

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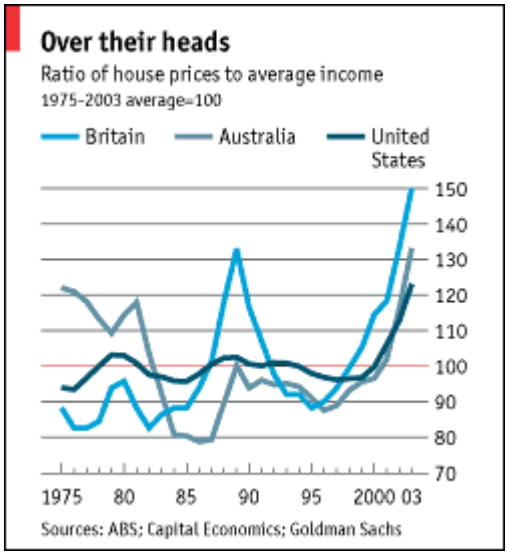
Property prices

Homing in on trouble

Mar 11th 2004
From The Economist print edition

Sell, sell, sell



HOUSING markets in many countries are hotting up again, according to *The Economist*'s latest quarterly update of its global house-price indicators. After earlier signs of a slowdown, markets have accelerated in several countries, leaving prices looking even more overvalued.

The prices of American homes rose by an annual rate of 15.5% in the fourth quarter, the fastest pace for almost a quarter of a century, lifting the 12-month rate of increase to 8% from 5.9% in the third quarter. Australian house prices rose at their fastest rate in almost 15 years in the last three months of 2003. They were 18.9% higher than a year ago, the biggest rise in our table. Prices have also accelerated in France and Italy in the past year and are now rising even faster than in Britain. Our British index has changed: we are now using the series published by the Office of the Deputy Prime Minister. Its 12-month rate of increase has fallen from 25% at the end of 2002 to almost 10% in January. Even so, prices have spurted in recent months.

House prices are at record levels in relation to average income in America, Australia, Britain, Ireland, the Netherlands and Spain. The prices of British, Irish and Dutch homes are now 50% above their 30-year average relative to incomes. By the same gauge, property is “overvalued” by 23% in America, by 33% in Australia, and by 68% in Spain.

The main reason why house prices have been rising so rapidly in so many countries is the historically low level of interest rates, which has allowed households to borrow more to buy a home. The worry is that what started as a rational adjustment to lower interest rates has turned into irrational exuberance.

The Bank for International Settlements (BIS, the so-called central bankers' central bank) is keeping a close eye on the housing market. After stockmarkets tumbled, the boom in house prices helped to support spending by boosting household wealth. If prices went into reverse the world economy could be in big trouble.

The BIS's latest *Quarterly Review* includes a collection of papers analysing housing markets around the world. Claudio Borio and Patrick McGuire, two BIS economists, have analysed the relationship between booms and busts in equity and house prices in 13 countries over 30 years. In the past, housing markets tended to peak an average of two years after stockmarkets. It is thus unusual that four years after the peak in share prices, home prices continue to boom. The BIS suggests that this is mainly because interest rates are unusually low.

In the past, lower interest rates have only postponed house-price busts. If interest rates stay low, house prices could continue to rise for some time. But are there any clues as to how far they might eventually fall? The authors draw two conclusions from past experience. The bigger the boom in property prices, the bigger the bust. And the bigger the increase in debt accompanying the boom, the more that real house prices fall. It is ominous, therefore, that many countries have seen a much bigger rise in real house prices

than in previous cycles, and that debt has increased more sharply.

Another paper in the *Quarterly Review* cautions that when periods of high inflation are followed by a sharp fall in inflation and hence interest rates, this may well breed misalignments in house prices from their long-term fundamental values. Translated out of BIS-speak, the central bankers seem to be worried.

The Economist's house-price indices

% change on a year ago

	2002 Q4	Latest
Australia	18.4	18.9
Spain	17.4	15.6
Ireland	11.1	13.4
France	9.3	11.4
Italy	9.8	10.6
Britain	25.2	9.7
United States	7.8	8.0
Canada	7.1	6.3
Sweden	9.2	6.1
Belgium	9.9	4.2
Netherlands	4.1	3.4
Germany	-3.3	-1.7
Japan	-4.7	-5.7

Sources: Bulwien; ESRI; Japan Real Estate Institute; Ministerio de Fomento; NVM; Nomisma; ODPM; OFHEO; Stadim; government statistics

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Argentina and the IMF

Knife-fights

Mar 11th 2004 | WASHINGTON, DC
From The Economist print edition

Default averted

JORGE LUIS BORGES once wrote of the power of tango to conjure an imagined past, “stoic and orgiastic, in which I have challenged and fought, in the end to fall silently in an obscure knife-fight. Perhaps this is the tango's mission: to give Argentines the belief in a brave past, in having met the demands of honour and bravery.” This week, Argentina challenged and fought, met the demands of honour—and blinked in the face of the International Monetary Fund. Or was it the Fund that blinked?

It scarcely matters. After threatening to the last that it might not, on March 9th the Argentine government paid on time $3.1 billion in interest and principal it owed the IMF, so averting the biggest default in the institution's history. But Argentina gets something in return: later this month the IMF will recommend to its board that the country should be paid the money back again, part of a $13.5 billion facility agreed last September. Relief all round.

What led Argentina back from the brink? Tougher pressure, for a start, from the IMF and the G7 countries who dominate the institution's board. In making threats not to pay, President Néstor Kirchner might have thought that he could browbeat Horst Köhler, then managing director of the Fund. Yet on March 4th Mr Köhler suddenly stepped down after being nominated to be president of Germany. His acting replacement is Anne Krueger, whose tough stance had drawn nasty attacks from the Argentine establishment. Showing no sign of having taken these to heart, in a long telephone call she persuaded President Kirchner to make the payment.

AFP

Argentine anger at the IMF

She will have been helped by a hardened attitude from the United States. Long an indulgent supporter of continued lending to Argentina, America has recently showed impatience at the country's lack of progress—evasion even—in dealing with its external private creditors. The country is in default to these, to the tune of $88 billion, and the perception has grown that Argentina has done its best not to engage constructively with them. The IMF's own rules say that it may lend to a country in default to its private creditors only when the borrower is deemed to be dealing in good faith with them.

There are a great mass of bond issues and bondholders. In September, Argentina's economy minister, Roberto Lavagna, offered to return to creditors a quarter of the bonds' face value. Bondholders understood him to mean that Argentina was not proposing to pay any past due interest; so, in effect, creditors would get back just one-tenth of what they were owed. Argentina says it won't modify its offer.

However, Mr Lavagna has said recently that the offer is for a quarter of the bonds' net present value—ie, including past due interest payments. He talks about swapping old debt for bonds whose payments are linked to economic performance. Insisting the offer was non-negotiable while failing to clarify the terms has generated muddle—perhaps intentionally so.

Dissatisfaction with Argentina grew for other reasons. It attempted to deal only with bondholders prepared to sign a central register, and it refused formally to recognise the biggest creditor group, the Global Committee of Argentina Bondholders, who speak for owners of nearly half of the defaulted bonds. Now, as part of its deal with the IMF, Argentina says that it will recognise the committee, and that it will give formal powers to the banks it has appointed to deal with creditors. Mr Lavagna says that he will

begin negotiations with creditors as soon as this month. The Argentine government hopes that an agreement will have been reached within a few months.

Any foot-dragging, of course, and the fights will start again. Then there is Argentina's robust growth. Currently Argentina is meeting its economic and budgetary targets with room to spare. But that will only increase the demands for more money for creditors—so skirmishing is guaranteed here, too. Yet as one Fund staffer says, better skirmishes than war.

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Martha Stewart

Now for Act Two

Mar 11th 2004 | NEW YORK
From The Economist print edition

Her real trials have yet to begin

AFTER a six-week run to full houses, the curtain came down on the Martha Stewart trial on March 5th. A New York jury convicted the leading lady on four counts—all of which, in common language, amounted to lying. However, more courtroom drama lies ahead, for appeals and civil litigation, and to determine the fate of her company, Martha Stewart Living Omnimedia.

Whether the sequels will grip the public as the original did is an open question. Many wealthy people have been tried in New York, and for much racier crimes, but few of their trials have had as devoted a following. From the first day to the last, when the lifestyle guru exited, guilty, the courtroom was packed.

The trial had tears, betrayal, even the death of a key witness (after he had testified). Yet the plot lacked a core: whether Ms Stewart had violated insider-trading laws. Tipped off by her broker about a share sale by Samuel Waksal, chief executive of a company named ImClone, she sold shares of her own. The case against her concerned her explanation of this sale: using a tip may have been alright.

The obvious lesson was that lying is a crime. A little less obviously, the case against Ms Stewart was built out of her own words to prosecutors. With clever legal advice these words could have been avoided. The trial will thus remind anyone accused of financial crime to call their lawyers sooner rather than later.

Ms Stewart faces the possibility of more than a year in jail. She might have faced a much tougher sentence if the judge, Miriam Cedarbaum, had not thrown out the most serious charge against her, securities fraud, just before the end of the trial. Although sentencing is scheduled for June 17th, it is likely to be delayed pending appeal. Her lawyers may argue that Judge Cedarbaum damaged the defence effort by not allowing them to call experts to discuss why prosecutors had not charged her with insider trading (presumably because she was not an insider at ImClone and because the tip came not from Mr Waksal but her broker). After the trial, jurors said they were frustrated that Ms Stewart had not testified. Her lawyers may also point out to an appeals court that this is not supposed to weigh in a jury's decision.

What next for Ms Stewart's company? As *The Economist* went to press, its directors were still debating what to do about their chief executive. Certainly she is tarnished: she is no longer writing her syndicated newspaper column and her television show has been dropped by Viacom. Yet some investors and consumers may believe that her virtues outweigh her sins. After all, she is largely responsible for the firm's success. The principle of disclosure implies that, if she stays, some reference would have to be made to her conviction—in case anyone had missed it.

Ms Stewart faces charges from the Securities and Exchange Commission (SEC): these do include insider trading. Because the case will be civil, not criminal, the burden of proof will be less: the balance of evidence, rather than beyond reasonable doubt. The SEC often attempts to bar defendants from executive positions, but as part of a negotiated settlement. Then Ms Stewart will face the ultimate scourge of America's legal system: plaintiffs' lawyers seeking redress for money lost when her company's share price fell. At times, even jail might seem a welcome relief.

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Warren Buffett

Sage words

Mar 11th 2004
From The Economist print edition

Everything is too pricey, says Warren Buffett, and risk is ill rewarded

UNLIKE the oracle at the Federal Reserve, the Sage of Omaha speaks plainly. Also known as Warren Buffett, chairman of Berkshire Hathaway, he is probably the world's most revered investor and certainly its richest. And what he has to say often turns out, sooner or later, to be right.

In his annual letter to shareholders on March 8th, Mr Buffett touched on many things: the venality of mutual-fund managers; the splendid performance of Berkshire Hathaway's insurance business; bad company management; the tax authorities; the problems with the dollar (for the first time the company is holding $12 billion in foreign currencies); and the peculiar way in which the company bought a house builder called Clayton Homes. But the most striking thing about Mr Buffett's comments is quite how many financial assets are still too expensive for his tastes.

EPA

The price is wrong, says Buffett

The result is that Berkshire Hathaway is now sitting on a cash pile of $36 billion, much of it in government securities. Although, as Mr Buffett puts it, these pay “pathetically low interest”, the pain of doing something stupid is potentially worse. “Charlie [Munger, his right-hand man] and I detest taking even small risks unless we feel that we are being adequately compensated for doing so. About as far as we will go down that path is to occasionally eat cottage cheese a day after the expiration date on the carton.”

Listed shares have thus fallen from 114% of the company's net worth in the 1980s to about 50%. “In recent years we've found it hard to find significantly undervalued stocks, a difficulty greatly accentuated by the mushrooming of the funds we must deploy,” says Mr Buffett.

Just how expensive shares are depends on how you value them. Those listed on the NASDAQ market defy reason. On March 10th, the fourth anniversary of its tech-bubble peak, the market was trading on a prospective price/earnings (p/e) ratio of 32 and stood 80% above its trough in 2002. The p/e ratio for the S&P500 is a more earthbound 18, according to most estimates—a bit above its long-term average. Much depends, however, on what counts as a sustainable profit: without huge cuts in corporate taxes, for example, earnings last year would have been a third lower.

James Montier of Dresdner Kleinwort Wasserstein, an investment bank, suggests that using a straightforward p/e is simplistic. In “Security Analysis”, the 1934 classic by Benjamin Graham and David Dodd, the authors suggest that investors use a ten-year moving average of profits, which smoothes out the effect of the business cycle. Nobody, they say, should buy shares with a p/e ratio of more than 16. Mr Montier puts the S&P 500's ratio at 31, about what it was in 1929.

Corporate bonds are hardly a give-away either. Mr Buffett bought $8 billion of them in 2002, when they were very cheap. “The pendulum swung quickly, though, and this sector now looks decidedly unattractive to us,” said Mr Buffett. An index of junk-debt spreads compiled by Standard & Poor's (S&P) has fallen by more than half since its high. Just how quickly the pendulum has swung can be judged by the $1.1 billion in pre-tax profits that Berkshire Hathaway made on its junk-bond portfolio last year. Now they are expensive: “Yesterday's weeds are today being priced as flowers,” says Mr Buffett.

Trouble is brewing, says Diane Vazza, a managing director at S&P. Although bond defaults are falling,

this is largely because the economy is benign and interest rates ultra-low. The resulting demand for yield "allows the most speculative grade of issuers access to the capital markets".

In January and February, 46% of new junk issues carried a rating of B- or less. Over last year as a whole, the figure was 31%, which was in turn higher than in 2002. "When the share of lower-grade issuance exceeds 30% for a sustained period of time," says S&P, "it generally serves as a reliable indicator of imminent default pressure two or three years ahead". Mr Buffett, who regularly dons a hair shirt for not selling more stocks in "The Great Bubble", as he calls it, will presumably not want to make the same mistake twice.

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French banking

Town and country

Mar 11th 2004
From The Economist print edition

Hard work ahead for France's newly merged bank

IF TELEVISION shows from “The Beverly Hillbillies” (bumpkins in cool California) to “The Simple Life” (Paris Hilton, a spoiled heiress, in rural Arkansas) are to be believed, country folk and city slickers do not mix. So when Crédit Agricole, a big, mutually owned French bank with its roots in the countryside, bought Crédit Lyonnais, a bank strongest in France's cities, in late 2002, cynics were quick to predict disaster. On March 10th Crédit Agricole proudly announced operating profits of €1.1 billion ($1.4 billion) in the fourth quarter of 2003, up 49% on a year before, thanks to robust growth across all business lines. A happy union after all?

Not necessarily, and not yet. Once charges for the Crédit Lyonnais acquisition of €716m were lopped off, the bank's figures looked worse than forecast. A surge in operating profits was only to be expected. French retail banks have been doing well, and rising stockmarkets have boosted asset management: Crédit Agricole was always strong in both areas. Crédit Lyonnais, once a byword for mismanagement and fraud, benefited from a restructuring programme in the late 1990s, says Yves Burger of Standard & Poor's.

And so to work

The hard graft of integrating the two banks has barely begun. The bank has wrung out just 5% of the €760m in expected total synergies. This year it will reap only half of the €574m in initial savings it once expected.

Management blames this on a delay in getting regulatory approval for the merger. But Crédit Agricole's complex structure—it is largely owned by 44 regional French banks—was probably little help either. The same applies to bitter tussles between the two banks' top brass, especially at Calyon, the recently rechristened corporate and investment bank, from which over two-thirds of the synergies are expected to come.

In December Dominique Ferrero, Crédit Lyonnais's brash former chief executive and one of its few survivors, was replaced by Edouard Esparbes, former boss of Crédit Agricole's Ile-de-France branch and a strident critic of the merger. Some analysts think that Mr Esparbes, who has no investment-banking experience, will do well at cutting costs—but that he will not excel at expanding the business. Calyon still lags its two main French competitors, BNP Paribas and Société Générale. These rivals are already poaching various traders and analysts.

The retail side is arguably even trickier, even though the combined bank leads the French market with some 30%. The two retail networks are being left intact: there is little overlap and there is political pressure not to cut jobs. Costs can be saved by rationalising back-office systems. However, there is little room for growth at home; and cultural, political and legal barriers stand in the way of expansion abroad. “Pan-European banking does not exist,” says Sam Theodore of Moody's.

Crédit Agricole can take courage from the takeover in 1999 by Banque Nationale de Paris of Paribas. That couple also started with a sturdy retail-banking platform and a corporate and investment-banking group in need of restructuring that has become a respectable second-tier player by focusing on juicy niches such as derivatives. But BNP Paribas had the luxury of a booming economy at home and abroad. Will Crédit Agricole be as lucky?

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Capital gains

Blessed are the tax evaders

Mar 11th 2004 | FRANKFURT
From The Economist print edition

A tax on honesty—or stupidity

THOSE upright Germans who told the taxman how much they had gained by stagging shares on the Neuer Markt in the boom years of 1997 and 1998 are now kicking themselves. Those who disputed their tax demands, or binned them, are laughing.

This week the Federal Constitutional Court decided that levying tax on those short-term gains—applicable if the shares were sold within six months—was unconstitutional because it could not be done even-handedly. Bank secrecy makes it well-nigh impossible to expose liars and tax-dodgers, so why punish the honest?

However, the court also decided that the finance ministry need not repay those who had paid up quietly according to the law of the time, but only those who made a fuss. The law was changed in 1999: the holding period is now 12 months and gains can be offset by losses. Moreover, tax dodgers can no longer hide behind bank secrecy because since the beginning of this year banks have been obliged to record clients' annual capital gains.

Many lawyers believe the wrangling will continue until Germany has a clear and practicable law on capital gains tax. They include Klaus Tipke, a professor emeritus of Cologne University, who started the whole thing by fighting a 1997 tax demand for DM1,700 ($980): “I'm now thinking of fighting my 1999 tax demand,” he says, “but first I'll see what my learned colleagues write.”

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IPOs in Germany

False start

Mar 11th 2004 | FRANKFURT
From The Economist print edition

The first new share offering in two years is not running smoothly

HAS ING Bank been too eager to launch the first German initial public offering (IPO) for two years? It looks that way. On March 4th the Dutch investment bank introduced its candidate, X-Fab, a semiconductor-maker, to investors—and only the next day did it produce a share prospectus. More embarrassing still, Commerzbank, one of Germany's biggest banks, quit as a co-lead manager, reportedly over a disagreement about pricing.

The shares are due to be listed on March 19th and are planned to fetch €100m-180m ($120m-$220m) in total. This week ING was talking urgently to potential investors in America and Britain in an attempt to rescue the offering. Meanwhile, German fund managers referred in withering terms to their loss of enthusiasm since the issue was first touted last month.

The Germans see the ghost of the slap-dash IPOs of the technology bubble in 1999 and 2000, when no one much cared about the fine detail. But then the Neuer Markt, the country's stockmarket for new-economy shares, nose-dived. It was shut down last June. The fiasco did much to kill Germany's young retail market for shares. Although the stockmarket has performed well for nearly a year, capital-market experts argue that retail interest must be fostered carefully. X-Fab was not the ideal start. This week, in the unofficial pre-issue market, X-Fab was trading near the bottom of its €10-14 price range.

ING argues that semiconductor firms are better understood outside Germany, where most of the issue will be placed. Nevertheless, if German investors remain snooty, a string of other newcomers will find it harder to raise cash—such as Siltronic, another semiconductor firm that is due for listing on March 26th. Its bankers argue that it is bigger and more well known than X-Fab.

In fact, better tests of the German retail market will come later. In the pipeline are household names such as ATU, an auto-parts manufacturer; Wincor Nixdorf, which makes cash dispensers; and Grohe, a maker of bathroom equipment. The big flotation scheduled for this year, however, is that of Postbank, a subsidiary of Deutsche Post that is Germany's most successful retail bank. According to figures reported this week, it contributed €497m of pre-tax profits to its parent's bottom line in 2003. Deutsche Post will sell 49% and is hoping to raise around €3 billion from the issue. But to do so it will need to attract retail buyers.

Germany's deal-starved investment bankers are sniping at ING. Why, they ask, is the Dutch bank running the deal from London rather than through BHF, its Frankfurt subsidiary, which was once Germany's premier investment bank? The locals in Frankfurt say the affair has done no harm at all to their city's standing as a financial centre, and it shows that German investors demand high standards. But they would say that, wouldn't they?

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Economics focus

Why welfare?

Mar 11th 2004
From The Economist print edition

An important new book traces the links between politics, racial diversity and the generosity of the state

NOTHING better encapsulates the different attitudes of America and Europe to the poor than a table towards the end of Alberto Alesina's and Edward Glaeser's remarkable book*, due to be published later this month. It compares the prevalence of three beliefs: that the poor are trapped in poverty; that luck determines income; and that the poor are lazy. The first is held by only 29% of Americans but by 60% of citizens of the European Union; the second, by 30% of Americans and 54% of Europeans; and the third, by contrast, by 60% of Americans and 24% of Europeans.

Mr Alesina and Mr Glaeser, both Harvard economists, are doing what the best in their profession do well these days: seeking to explain society not merely with conventional economic tools but with analysis of institutions, geography and social behaviour. They begin with the observation that America and Europe differ strikingly in their willingness to allow government to redistribute income from rich to poor. Government spending in the United States is about 30% of GDP; in continental Europe, where it includes most health-care spending, it is about 45%. Almost two-thirds of this spending is on welfare. Americans, by contrast, are much more likely to give money privately. They appear to have given $691 per head in charitable donations in 2000, compared with contributions of $141 in Britain and a mere $57 in Europe as a whole.

What explains the difference in welfare systems? It is patently not true that European redistribution redresses greater pre-tax inequality: Americans' gross incomes vary more than Europeans'. Maybe America is less unequal than it seems, because today's poor are tomorrow's rich? No, actually: the authors point out that America's poor are just as trapped in poverty as Europe's, whereas the European middle class climb the social ladder as easily as their American counterparts. Maybe Europe's tax collectors are more efficient than America's? “Implausible,” say the authors—one of whom, after all, is Italian by origin and so knows what a truly inefficient tax system looks like.

Instead, the authors advance two interesting explanations: politics and race. America's political structures differ from Europe's. They are older—not something most people on either side of the Atlantic usually realise—and more governed by conservative forces. Most countries in Europe have undergone turbulent political change in the past century; America has at least the bones of a structure created more than two centuries ago. Europe's upheavals have installed proportional representation in most countries, a structure that has facilitated the growth of socialist and communist parties. “There is a general relationship between the age of institutions and their unfriendliness to the welfare state,” they argue.

Geography also bolstered the power of labour in Europe and restrained it in America: in a small country like Belgium, labour unrest could have a much greater national impact than in a vast, dispersed country like the United States. So did the fact that Europe's countries saw a century of war, whereas America's geography and might protected it from invasion. Countries that saw war on their territory were more likely to acquire new political institutions, and ones that gave more power to the left.

Such institutional differences, the authors guess, are half the explanation for the contrasting approaches to poverty. But, they point out, institutions are “quite flexible and reflect different forces”. Those economists who regard political and legal institutions as given, rather than examining the forces that create and sustain them, are missing something important.

And then there's race

The other half of the explanation lies in America's racial diversity. In spite of 20 years of unprecedented immigration, European countries, particularly smaller ones like Portugal and those of Scandinavia, are still highly racially homogenous. America, by contrast, has great diversity, which is especially wide in some states. In addition, the poor in America are disproportionately non-white. Non-Hispanic whites are 71% of America's population but only 46% of the poor.

Racial diversity in individual states is correlated with the generosity of welfare. For instance, the authors find that in 1990 Aid to Families with Dependent Children ranged from over $800 per family per month in mainly white Alaska to less than $150 in Alabama and Mississippi, where almost one-third of the population is black. Even after adjustment for inter-state differences in average incomes, the correlation with race remained strong. Across countries, too, racial diversity goes with low government spending on poverty relief.

The reason, argue the authors, is that “race matters”, and they marshal statistical evidence, much of it from opinion surveys, to back this up. People are likely to support welfare if they live close to recipients of their own race; but are antipathetic if they live near recipients from another race. The divergent attitudes of Europeans and Americans to the poor are underwritten by the fact that the poor in Europe tend to be ethnically the same as most other folk. In America, their skin is often a different colour.

The authors say that “political entrepreneurs”, eager to use race as an excuse to turn the poor against redistribution, shape attitudes to race and to poverty. At different times, America has had its share. Is Europe immune? Look at the successes of the likes of Jörg Haider and Pim Fortuyn, and wonder. The recent evolution of Europe as a destination of mass migration, much more ethnically diverse than America's in most of the past century, will test the durability of the European welfare state.

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* “Fighting Poverty in the US and Europe: A World of Difference”. Oxford University Press, forthcoming

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Evolution

Grandmother's footsteps

Mar 11th 2004
From The Economist print edition

Alamy

Why women live so long

NATURE is unsentimental. In Herbert Spencer's famous phrase, it is a question of the survival of the fittest. You are born. If you are lucky, you reproduce. Then you die. Indeed, once you can no longer reproduce you are, evolutionarily speaking, dead anyway. That, at least, is the conventional wisdom. So it has been a bit of a mystery why women, who normally become infertile in their mid-40s with the arrival of the menopause, often live on and on. Indeed, the average lifespan of women in almost all societies exceeds that of men—and most men remain fertile well into old age.

The presumed explanation depends on a more sophisticated understanding of what “fittest” means. It is not enough to survive and have children. Your line has to continue through your grandchildren. In this context, the survival of women beyond menopause makes sense if it translates into extra grandchildren. Proving that hypothesis, though, is difficult. But Mirkka Lahdenpera, of the University of Turku, in Finland, and her colleagues, think they have managed to do so. Their work, just published in *Nature*, draws on records made in the 18th and 19th centuries in Finland and Canada. The results are striking. In both countries, a woman gained two extra grandchildren for every decade she survived beyond the age of 50.

The post-reproductive survival of humans—women in particular—is truly unusual. Non-reproductive “helpers” of individuals who are breeding are found in many species. But they are usually young animals that have yet to establish themselves, rather than relics from previous generations. The post-reproductive elderly just die. Chimpanzees, for example, have a similar pattern of fertility to people. A female chimp's fertility peaks in her late 20s, and is more or less extinguished by her mid-40s. But in chimpanzees, mortality rises as fertility declines.

Nor, despite the increase in average lifespan in the rich world over the past few centuries, is post-reproductive survival a modern phenomenon. Until very recently, most of the increase has been due to better survival in childhood and youth, rather than the increased prolongation of middle age into old age. Even in pre-industrial populations, around a third of women were over 45.

All this suggests that the prolonged old age of people—women in particular—is indeed an evolved phenomenon, rather than being a consequence of better living conditions. And the quality of the records

Dr Lahdenpera was working with allowed her to dig into the details of how this came about.

First, it was nothing to do with a long-lived woman having had more offspring in the first place, and the number of her grandchildren thus merely being a function of the number of her children. Nor was there any detectable effect due to the socio-economic status of the women involved. Rich or poor, high- or low-born, all showed the same trend. And, contrary to the beliefs of some workers in the field, both sons and daughters benefited from the survival of a matriarch, not merely daughters alone.

Nor was the increase due to a single effect. Instead, Dr Lahdenpera was able to disentangle a range of beneficial phenomena which, when added together, resulted in the increased reproductive success that she observed. People whose mothers were still alive both gave birth to more offspring and raised a higher proportion of those offspring to adulthood. They also gave birth to their first children at a younger age than those whose mothers had died, and the births of their children were more closely spaced. All of these things contribute to reproductive output.

Moreover, the physical presence of the matriarch was vital. Children who lived more than 20km from their mothers produced significantly fewer offspring than those who lived in the same village. That suggests the increase in the number of grandchildren was due not to some subtle genetic effect, but rather to help—whether physical or in the form of advice—that matriarchs were contributing.

Perhaps the most evolutionarily significant finding, though, is the age at which the matriarchs in the study died. The average lifespan of post-menopausal Finns was 68. Of Canadians, it was 74. These ages correspond to the points where the matriarch's children themselves had stopped reproducing. At that point, a woman's fitness plummets. And so, sadly, does her life expectancy.

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French science

Trahison des clercs

Mar 11th 2004 | PARIS
From The Economist print edition

The heads of France's national labs have withdrawn their labour

DOUGLAS ADAMS captured the essence of industrial relations in “The Hitchhikers' Guide to the Galaxy”:

> Vroomfondel: “We'll go on strike.”
>
> Majikthise: “That's right, you'll have a National Philosophers' strike on your hands.”
>
> Deep Thought (a computer): “Who will that inconvenience?”

But life sometimes imitates art. Though the protagonists are natural philosophers, rather than the variety who sit in armchairs thinking for a living, it certainly isn't clear who will be inconvenienced by the “resignation of administrative duties” of the heads of many of France's government research laboratories. However, these honoured descendants of Vroomfondel and Majikthise are clearly very annoyed.

AFP

Pasteur's heirs want their money back

The source of their annoyance goes back to 2002. In that year, a large part of the country's science budget—though approved by parliament—failed to make it into the bank accounts of the institutes for whom it was supposedly destined. In 2003, the government at least had the grace to formalise the process. It cancelled the budget that parliament had approved and sent it back with instructions to make cuts. Meanwhile, Claudie Haigneré, the science minister, announced last autumn that both the budget and 550 permanent research posts would be cut in 2004.

As a result—and in a gesture that would have looked odd in most other countries—the researchers drew up a petition in January, demanding that the government cease its game of budgetary hide and seek. The petition made three requests. The first was that the 550 research positions be reinstated. The second was that the government pay the €300m ($366m) it owed from the 2002 budget immediately. The third was that it engage with the scientific community in a “restructuring exercise for the nation's research framework”. Failing this, the petitioners said, those among them who were research directors would “resign their administrative duties to the government” on March 9th.

Over the past couple of weeks, the government appeared to blink. It has vowed to pay its debt, to reinstate 120 of the 550 jobs, and to invest €3 billion in research between now and 2007. None of this, however, has been enough to quell the scientists. They remain unsatisfied with the employment offers,

and are convinced that the government is merely promising again money it has already allocated.

Hence, on March 9th, some 15,000 protesters followed the long-established tradition of disgruntled French people by taking to the streets. They arrived at the gates of the Ministry of Science, where more than 2,000 laboratory heads duly deposited their resignation letters.

There may be less to this than meets the eye. What exactly “resigning their administrative duties” really means is slippery, since the government does not have to accept the resignations. And a few signatories of the original petition have already had cold feet, and decided not to resign after all. Nevertheless, the incident calls into question France's view of its economic future and whether the government believes that basic research has an important contribution to make to that future.

Perhaps the research directors' best tactic would be to invoke France's enduring rivalry with Britain. For while France is cutting its science budget, Britain plans to increase its own. A week before the mass resignation, Gordon Brown, Britain's chancellor of the exchequer, announced a new assessment of government funding of science—with a clear implication that the result would be a significant increase, rather than a diminution, of the flow of money to British scientists. The British government certainly seems to believe that basic research has positive economic consequences. Of course, that is a toss that can be argued. But even if the French government is deaf to the pleas of its own researchers, could French pride stand being trumped by perfidious Albion?

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Hubble's last stand?

Mar 11th 2004
From The Economist print edition

Get article background

Reuters

It may not look much, but this series of smudges is one of the most profound views of the universe available. It is part of the Ultra Deep Field image snapped by Hubble, an orbiting telescope owned by NASA, America's space agency. The image required a 1m second exposure (though this was divided into short chunks over the course of 400 of the telescope's orbits). The length of the exposure allowed galaxies more than 13 billion light years away to be photographed. The redder a galaxy appears in the picture, the further away it is. This is due to the Doppler effect, which causes the light from receding objects to be shifted towards the red end of the spectrum. Since the universe is expanding, the further away a galaxy is, the faster it is receding. The reddest galaxies are seen as they were a mere 400m years after the Big Bang in which the universe began. A pity, then, that NASA has decided to stop servicing Hubble, and to let the spacecraft die.

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Multiple sclerosis

Weapons of sheath destruction

Mar 11th 2004
From The Economist print edition

The immune system may not be the culprit in multiple sclerosis

RESEARCHERS have long believed that multiple sclerosis (MS) is an “autoimmune” disease, caused by the immune system attacking nerves and stripping them of their fatty wrappings. Without these wrappings, known as myelin sheaths, electrical impulses cannot travel along nerve fibres. This leads to the deterioration of mind and body which is symptomatic of MS. However, a study published in the *Annals of Neurology* by John Prineas and Michael Barnett, of the University of Sydney, suggests that the immune system may not be to blame, after all. Instead, these researchers think that the myelin sheaths are destroying themselves.

Studying the cause of MS is difficult. Most patients have a form of the disease that comes and goes irregularly. Because such patients usually recover from their relapses, it is hard to look at what is going on in their nervous systems in order to find out what causes the symptoms. Instead, researchers are left with the aftermath—myelin sheaths that have been invaded by T-cells and macrophages from the immune system. The assumption has been that these immune cells cause the disease. But correlation is not the same as proof.

Some people, however, die during or shortly after a relapse. Dr Prineas and Dr Barnett reasoned that in these cases the causative factors would be “frozen” in the patients' nervous systems, and could be discovered during autopsies.

To test this idea they studied the corpses of 12 patients who had died in relapse. They found that all 12 had the scars typical of MS in their nervous systems. What was unexpected was that the patients' myelin sheaths were largely intact, and showed little inflammation. In particular, there was no sign of the “killer” T-cells of the immune system that were assumed to be causing the problem, nor of the macrophages that clear up the mess that T-cells create.

In seven of the 12 cases, however, oligodendrocytes—the cells that actually make myelin—were surrounded by microglia, another type of cell found in the nervous system. The role of microglia, like that of macrophages, is to clean up the debris of dead and dying cells. In the case of Dr Prineas's and Dr Barnett's patients the microglia had engulfed and chewed up the oligodendrocytes. Once the oligodendrocytes are dead, Dr Prineas and Dr Barnett reason, the sections of myelin sheath they support will disintegrate.

Microglia do not, however, normally kill other cells. So something else must be happening. The researchers suggest it is a process called apoptosis. This is a fancy name for cellular suicide.

Cells often kill themselves for good reason. If a cell “realises” that it is infected with a virus, or is part of a tumour, suicide is a sensible option. Apoptosis is also common during embryonic development, when removing superfluous tissue is as important as growing necessary new tissue. Apoptosis should not, however, occur in healthy cells. Nor should it attract the attention of the immune system. Dr Prineas and Dr Barnett suspect that the immune system gets involved in the case of MS because myelin sheaths are so large that their disintegration overwhelms the local clean-up mechanisms such as microglia. Enough myelin is thus left over to trigger an immune response. But what causes the apoptosis of oligodendrocytes in the first place is still as much of a mystery as it is a tongue-twister.

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Orchids

Some flowery prose

Mar 11th 2004 | NEW YORK
From The Economist print edition

The world's biggest orchid show is under way in New York

IN A corner of the vast Haupt Conservatory at the New York Botanical Garden, America's largest Victorian greenhouse, the orchid that proved Charles Darwin right is flowering. From the back of the bloom of *Angraecum sesquipedale*, a delicate white flower from Madagascar, there sprouts a 25cm-long nectar tube. To the mirth of his colleagues, Darwin postulated that there must therefore exist a moth with a 25cm-long proboscis, specially evolved to sup the nectar and thus pollinate the flower. Only 40 years later was the moth discovered. It was named *Xanthopan morgani praedicta* in honour of Darwin's accurate prediction.

Angraecum sesquipedale is one of 5,000 species now on display at the garden's month-long Orchid Show. Even that number represents but a fifth of the diversity of the Orchidaceae, a group of flowering plants that has had 100m years to do its evolving, and has done so on every continent save Antarctica.

Orchids, the largest family of plants on the planet, are curious in a variety of ways. One is that their male and female structures are fused together, leading early Victorian botanists to argue that they must be self-fertilising and thus prove wrong Darwin's arguments about the interbreeding required for genetic diversity. Darwin was sufficiently intrigued by orchids to write a book, which included a rebuttal of this argument, about the plants.

A second oddity, though, is more reminiscent of a short story by H. G. Wells, in which a hot-house orchid sucks the blood from its proud, new owner. This oddity concerns the way that orchids reproduce.

Unlike most other flowering plants, orchids waste no energy on granting their seeds a supply of food to give them a start in life. Instead, orchid seeds have a thin, fragile coating, and lie in wait for a fungus to penetrate it. As the fungus starts to feed off the seed, the seed turns the tables and feeds off the fungus. Bear that sinister fact in mind when next you pluck an orchid for your buttonhole.

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Iraq and weapons of mass destruction

A disarming tale

Mar 11th 2004
From The Economist print edition

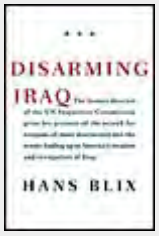
Reuters

Without Saddam Hussein's co-operation, it was impossible to be sure that Iraq had dismantled its weapons programme. That was the problem

DAYS before America, Britain and the other coalition partners launched their attack on Iraq last year, Hans Blix, the United Nations' chief weapons inspector, met Amr Moussa, the head of the Arab League. Mr Moussa was planning to visit Baghdad in a last-ditch effort to avoid a war. In the end, he never went. But Mr Blix had suggested a two-fold message for the man he dubbed "the emperor of Mesopotamia": that the only chance to avoid an onslaught was for Saddam Hussein to make the long-refused "strategic decision" to tell all about his weapons or weapons programmes; and that, if it came to a fight, Iraq must refrain from any use of chemical or biological weapons. Otherwise, people who now opposed armed action would say the action had been proved justified.

In his new book, Mr Blix makes clear that he was one of those who opposed the use of force. He regrets that inspectors were not given more time to try disarming Iraq peacefully. In the light of the subsequent failure to find stocks of chemical or biological weapons, he is critical of George Bush and Tony Blair for over-selling the immediacy of the threat. And he thinks they were anyway wrong to start such a war without explicit UN backing.

Disarming Iraq: The Search for Weapons of Mass Destruction
By Hans Blix



Pantheon; 285 pages; $24.
Bloomsbury; £16.99

Buy it at
Amazon.com
Amazon.co.uk

Yet, as his chat with Mr Moussa showed, and despite finding no more than a few empty chemical shells himself, Mr Blix at the time also had a "gut feeling" that Iraq still had weapons hidden away and was up to no good. And, for all the frantic attempts by Iraqi officials to fend off force, Mr Blix is clear that they never provided the "immediate, active and unconditional" co-operation that the Security Council had demanded, unanimously, the previous November in resolution 1441.

That resolution had given Iraq a "final opportunity" to disarm or show what it had done with its weapons. All documents relating to nuclear, chemical, biological and missile programmes and research, whether military or civilian, were to be given up. Iraq failed to do any of this. Its 12,000-page declaration a month later did not answer any of Mr Blix's outstanding questions. Yet most council members still

opposed using force. So what had been the point of 1441? And what could more inspections have hoped to achieve?

As Mr Blix acknowledges, inspectors would not have been in Iraq at all without the build-up of American and British troops on its borders. Yet Mr Bush had made quite plain to the UN General Assembly in September that his goal was not simply to get inspectors back (after four years' absence), but to ensure Iraq's proper disarmament, with the UN or, if necessary, without it. Thus to America, after 12 years of Iraqi defiance, 1441 was indeed the final ultimatum. Yet the French, concluding that America was now bent on war no matter what, dug in their heels.

From his dealings with American officials, Mr Blix saw it differently. Had Saddam Hussein responded, he argues, the military build-up would have been slowed, or stopped. Yet, like France, Germany and Russia, he wanted more time for the inspectors. Force might be contemplated at some point, but not now. Why couldn't these differences be bridged?

Mr Blix accepts that the military force built up to pressure Iraq into admitting the inspectors, once at full strength, could not be held indefinitely through the summer heat. He skates more lightly over why the rift in the Security Council became so bitter. The main reason was that the big players had all been through this before. During earlier inspections in the mid-1990s, trust had broken down badly in the council when first Russia and China, then France, tiring of mounting Iraqi intransigence, argued for a switch to less intrusive monitoring and an easing of sanctions so that trade could resume. The inspection regime collapsed. Now the same countries were espousing inspections they had once deemed no longer necessary, in a way that, to American eyes at least, again hindered proper enforcement of Iraq's obligation to disarm.

Yet Mr Blix is clear about the main reason why military preparations eventually outpaced fraught diplomacy—Iraq's own obduracy. It did eventually make the process of inspection easier, and allowed the destruction of some illegal missiles, but this was far too little, and too late.

Have inspections since been vindicated? Mr Blix points out that the UN had succeeded in disarming Iraq, only without knowing it. But that is the difficulty. Without ready Iraqi co-operation, of the sort Libya has shown in giving up its illicit weapons and missiles, how would anyone have known it. Iraq gave every indication of hiding something.

And indeed it was. The American-led inspectors who have been combing Iraq since the war have found materials, documents and evidence of research programmes that should have been handed over to the UN. They have also uncovered efforts, unknown to Mr Blix and his team, to acquire illegal far-flying missiles with help from North Korea and companies in Russia. Why would Saddam Hussein pay millions for missiles if he had no powerful warheads to put on them? Like so much about Saddam's Iraq, this is a mystery. But Mr Blix's hunch before the war, that he was up to no good, wasn't far wrong.

Disarming Iraq: The Search for Weapons of Mass Destruction.
By Hans Blix.
Pantheon; 285 pages; $24.
Bloomsbury; £16.99

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About sponsorship

The power of witchcraft

Presidents for life—and beyond

Mar 11th 2004
From The Economist print edition

OF ALL the prestige projects undertaken by Ghana's founding president, Kwame Nkrumah, the hydroelectric dam on the river Volta was the grandest, so he began it with a human sacrifice, to harness the power of the spirit world and thereby ensure success. Or so it was rumoured. Stephen Ellis and Gerrie Ter Haar do not believe the rumour, but a lot of Ghanaians did. That they believed their president capable of such an act was not a sign of popular opposition, argue the authors of this intriguing book, but "an acknowledgment of his authority".

Worlds of Power: Religious Thought and Political Practice in Africa
By Stephen Ellis and Gerrie Ter Haar

Oxford University Press; 263 pages; $60 and $19.95 (paperback). Hurst; £45 and £16.50 (paperback)

Buy it at
Amazon.com
Amazon.co.uk

Many Ghanaians saw their leader not only as head of the bureaucratic state bequeathed by Ghana's British colonists, but also as the heir of the pre-colonial Ashanti kings who, like many West African potentates, could order human sacrifices on important occasions. Nkrumah strenuously denied doing anything of the sort, but at the same time he encouraged people to believe that he was no ordinary mortal. He assumed the old Ashanti royal title of *Osagyefo* ("Redeemer"), and sometimes likened himself to Jesus, too.

The beliefs that affect African politics are neither well nor widely understood because they are rarely written down. A new book tries to fill that gap. Its main contention is that since many Africans see power as originating in the spirit world, it is impossible to understand African politics without studying the secret world of *marabouts* (witch-doctors) and magic.

To maintain their grip on temporal power, African presidents try to convince people that they wield the spiritual sort too. One president of Benin made his spiritual adviser a minister, in charge of the secret service. This made him "truly formidable, for as well as being presumed to have a special relationship with the devil, he also controlled the torture chambers".

So many of the African elite consult spiritualists that the spiritualists can become powerfully knowledgeable. If an army officer asks a *marabout* to tell him which would be the most auspicious day for a coup, the *marabout* may choose to leak that information to another client, thus enhancing his reputation for accurate prophesy. Given widespread faith in *marabouts*, even sceptical presidents find it useful to put one or two on the payroll.

The authors also examine the relationship between religion and wealth. Those Africans "fortunate enough to have plenty of money have often acquired it by means that are unclear to the great majority of the population", they note. A vague sense that wealth is ill-gotten can lead to accusations of witchcraft, which can be fatal. This, the authors suggest, is one reason why rich Africans tend to dole out cash to their kin and build ostentatious tombs, churches or mosques in their home villages. The richer they are, the grander they build: Félix Houphouët-Boigny, Côte d'Ivoire's late president, erected a basilica modelled on, but larger than, St Peter's in Rome.

There is much fascinating material in this book, but one wishes the authors had made the effort to write more concisely.

Worlds of Power: Religious Thought and Political Practice in Africa.
By Stephen Ellis and Gerrie Ter Haar.
Oxford University Press; 263 pages; $60 and $19.95 (paperback). Hurst; £45 and £16.50 (paperback)

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Carl Gustav Jung

Falling from favour

Mar 11th 2004
From The Economist print edition

TWO new books on Carl Gustav Jung emphasise very different aspects of the Swiss psychologist's eminently full life. In addition to chronicling—some would say over-chronicling—Jung's family life, letters and conversations, Deirdre Bair's biography investigates some of the more serious charges levelled during Jung's lifetime and since his death in 1961, namely that he was a womanising plagiarist and an anti-Semitic Nazi sympathiser. Sonu Shamdasani acknowledges these criticisms, but the main focus of his book is on the writings that most influenced Jung and on the impact he had on the human sciences through the 20th century.

In retrospect, Jung himself thought he had slipped up in his dealings with National Socialism and his writings on a Jewish versus an Aryan psychology during the 1930s. During the second world war, he also worked for the Office of Strategic Services, America's first intelligence agency, having been recruited by Allen Dulles, its Central European representative, who wrote about Jung's “deep antipathy to what Nazism and Fascism stood for”. Jung's analysis, written in 1945, of how best to get the German population to accept defeat was read by many, including General Eisenhower. Ms Bair sets forth evidence on the various charges against Jung, on the whole coming down in his favour. But the overall picture that emerges is of a paradoxical man, capable of great sensitivity, who appears also to have been a self-centred, irascible bully.

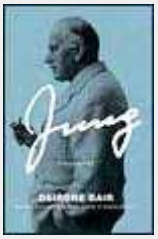
Jung saw himself as an empirical scientist whose sole professional interest lay in the workings of the psyche. He believed psychology should be conceived on a grand scale, as evidenced by the combination of disciplines he thought were needed to throw light on the “comparative anatomy of the mind”. According to Mr Shamdasani, an eminent historian of psychology and psychiatry at the Wellcome Trust Centre for the History of Medicine at University College London, these included medical psychology, philology, anthropology, history, philosophy, theology and biology.

Mr Shamdasani's book is a compilation of writings (with commentary) from many of the disciplines that influenced Jung's thinking, originating in antiquity through to the 20th century. The author's meticulous research illustrates something that has increasingly been suspected by Jung scholars, that the psychologist made extensive use of other people's work to illuminate his conceptions of archetypes, collective unconscious, introversion, extraversion, dream analysis and complexes, often referring to his approach as complex psychology.

Jung's ideas have not been widely assimilated, in part because his approach has fallen into discredit in academic circles but also because the additional research he always insisted needed to be done for complex psychology to move forward has not been taken up by his followers. Likewise, the synthesis of disciplines that Jung believed would culminate in the creation of an over-arching discipline of psychology has unravelled with the fragmentation of psychology into different schools.

As he grew older, Jung began to fear that this might happen, and he grew despondent about how marginalised psychology was becoming in the West. He also became depressed about two other realities: the possibility that the world would destroy itself either through over-population or the hydrogen bomb. “The question is only, what are we going to kill: ourselves or our still infantile psychology and its appalling unconsciousness.” The irony is that while the world may appear to be more psychologically

Jung: A Biography
By Deirdre Bair



Little, Brown; 881 pages; $35 and £25

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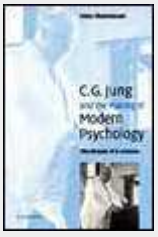
Jung and the Making of Modern Psychology: The Dream of a Science
By Sonu Shamdasani



Cambridge University Press; 404 pages; $75 and £50

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aware than it was a century ago, the study of psychology has yet to find the central place that Jung hoped it would.

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About sponsorship

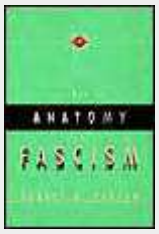
Fascism in history

A 20th-century passion

Mar 11th 2004
From The Economist print edition

ROBERT PAXTON is no ordinary historian. When Maurice Papon, an official responsible for deporting Jews from the Gironde during the German occupation of France, was put on trial in 1997, the Bordeaux judge called on four historians to explain the background to members of the jury, all but one of whom were born after the end of the second world war. Mr Paxton, a professor from Columbia University in New York, was one of those experts.

The Anatomy of Fascism
By Robert O. Paxton



Knopf; 321 pages; $26.

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Though mild in manner, his presence in court was electric. Here was an American telling French people about shameful events in their nation's recent past. Imagine a French expert in an American court describing racial segregation, or a German historian giving evidence to a British jury on Northern Ireland, and you have an idea of the emotions at work.

Mr Paxton is used to the role of outsider voicing awkward truths. Years ago he became the first post-war historian to turn comfortable French myths about Vichy upside down. His classic “Vichy France: Old Guard and New Order” (1972) argued that Vichy was less a shield for republican France against Nazism than a repressive and anti-democratic regime that begged Hitler to accept its co-operation.

His research seriously damaged the image of nation-wide resistance shared by Gaullists and Communists. Instead it showed the breadth of French collaboration. Though vilified when his book came out in French a year later, Mr Paxton's years in the provincial archives were hard to argue with. A view of France as participant, not purely victim, gained ground. To younger French historians, Mr Paxton became something of a hero.

Studying Vichy led Mr Paxton to fascism in general. How similar was it to Hitler's Germany or Mussolini's Italy? Was it one thing or many? Why did it win power in some places and not in others? Are its roots popular or intellectual? Could it recur? Mr Paxton lectured on these questions for many years at Columbia. Now, in retirement, he has gathered his conclusions into a deeply intelligent and very readable book. He moves through the scholarly minefields with sharp eyes and historical good sense. If there is a controversy he has missed, it is surely minor. (Those who enjoy academic warfare should not miss the 85 pages of bibliography and notes.)

Mr Paxton is alive to the complexities of politics without for once making them an excuse to avoid clear judgments. Not the least of his achievement is to make the over-written (and over-illustrated) subject of fascism fresh. He does this not by wrenching fascism out of its early 20th-century context or by suggesting that its after-runners in western Europe pose a serious or immediate threat. He makes fascism topical by putting it into the more general framework of how liberal democracies fail.

His first chapter is a brisk consumer warning against misleading images and tempting simplifications. Fascism was not, or not simply, a capture of the state by thugs or gamblers. Nor was it a collective trance under a mesmeric leader. Marxists were wrong to treat it as a predictable—though completely unpredicted—result of capitalism's internal conflicts. Sceptical of mechanical explanations, Mr Paxton throughout stresses the role of luck and human choice. Was fascism, like communism, an anti-bourgeois ideology? Fascist intellectuals talked an anti-bourgeois line, it is true. But their complaint was against bourgeois flabbiness, not against business itself or keeping workers under the thumb. Fascist intellectualising, besides, mattered far less than its celebration of unreason. Was fascism for all that not communism's totalitarian twin? Here, too, Mr Paxton has strong, and unfashionable, reservations.

The common difficulty Mr Paxton sees with all such approaches is in trying to distil an “essence of fascism”. Instead, he adopts a “comparative method” and gets down to cases. First he looks at a host of early fascist movements big and small, including the greyshirts of Iceland, although naturally he focuses on the brown and black shades in Germany and Italy. He describes how successful movements took root as parties, and how in Italy and Germany they won power. Hitler and Mussolini did not come to power by election, coup d'état or solo triumph but in coalition by due process thanks to a pliant head of state amid parliamentary deadlock. In crude terms, fascism won when liberals and conservatives panicked.

Ruthless as it was, fascist rule was also typically chaotic, Mr Paxton continues. Hitler and Mussolini governed atop turbulent fascist parties in uneasy collaboration with existing elites. Co-operation from the side and from below mattered as much as coercion from above. At the end after telling us often what fascism isn't, Mr Paxton keeps his promise to tell us what he thinks it is. His own capsule definition highlights “mobilising passions”. This is not a detective novel. But we leave Mr Paxton's full answer as a final nudge to readers, if one is needed, to learn from this excellent book. “The Anatomy of Fascism” is historical analysis at its best.

The Anatomy of Fascism.
By Robert O. Paxton.
Knopf; 321 pages; $26.
To be published in Britain by Penguin/Allen Lane next month

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About sponsorship

Dmitri Shostakovich

Facing off Stalin

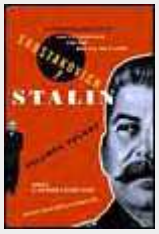
Mar 11th 2004
From The Economist print edition

WHEN Dmitri Shostakovich answered his phone one day in March 1949 he was told to hold on: Comrade Stalin wanted to speak to him. Stalin expressed surprise that the composer had declined an invitation to go to New York for a cultural conference for peace. Shostakovich said that he was “nauseated”. Stalin affected to believe that he was unwell and said he should see a doctor. But the nausea he had experienced was because none of his music and that of his colleagues Sergei Prokofiev and Aram Khatchaturian had been performed in the Soviet Union for more than a year.

Silence over the phone: at one end the tyrant, at the other the artist. The tyrant yielded. He said he was not aware that the composers had been censored and he would “have to correct the comrades” who had given the illegal order. Next day the luckless censors were punished. Shostakovich went to New York.

While Solomon Volkov uses the life of Shostakovich as its thread, the broad theme of his well written book (which is well translated from the Russian) is the experience of gifted artists who have the misfortune to live under a dictatorship. Shostakovich survived because Stalin found it useful to have at his disposal a brilliant and internationally famous composer. He was an advertisement for the culture of the Soviet Union. Nevertheless, he was branded an “anti-people” musician. Stalin enjoyed listening to music, but his tastes were simple: he liked a good tune. Shostakovich did not always write simple music.

Shostakovich and Stalin: The Extraordinary Relationship Between the Great Composer and the Brutal Dictator
By Solomon Volkov



Knopf; 313 pages; $30.
Little, Brown; £14.99

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Stalin suspected that he and some of his colleagues were under the influence of western composers such as Arnold Schoenberg and Paul Hindemith, and that their work had become subversive to communism. At the New York peace conference Shostakovich, his voice trembling, read a speech condemning the “clique of warmongers” planning aggression against the Soviet Union. He had had the courage to bargain with Stalin to lift the ban on his music. Now he had to submit.

Stalin knew the telephone was a useful instrument in his cat and mouse games. In 1930 he called Mikhail Bulgakov, a satirist and one of Russia's most popular writers. Stalin had heard that Bulgakov was thinking of moving abroad and seemed pleased when he said that a Russian writer could not live outside his homeland. Stalin lifted a ban on his work and said they should talk. Stalin never again spoke to Bulgakov and the ban was later imposed. Bulgakov died in 1940, aged 48, apparently stricken by the ban and Stalin's silence. His masterpiece, “The Master and Margarita”, was not published until 1966. In 1934 Stalin called Boris Pasternak, who was a friend of Osip Mandelstam, jailed for lampooning Stalin in verse. “We old Bolsheviks never deny our friends,” Stalin said, then hung up, leaving Pasternak uncertain what he meant, but fearing the worst. For many artists the worst happened: the labour camp, suicide or execution.

Mr Volkov shows what happened to creativity in a “cruel age”. But for an artist all ages are in some form cruel. Tsar Nicholas I, whom Stalin admired, cruelly manipulated Pushkin. In western Europe the church gave work only to painters who accepted its ideology. Even complacent Britain has a culture minister.

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Family memoirs

Kaleidoscope world

Mar 11th 2004
From The Economist print edition

“A PILE of odds and ends—how can I connect them all?” asks Michael Holroyd in this rather elusive postscript to his family memoirs, “Basil Street Blues”. He is talking about the strange interconnectedness of family lives, the forest of family trees, with branches reaching in all directions, which he explores, like the biographer he is, armed with birth, marriage and death certificates, wills and probates, hearsay and the capricious memories of survivors.

This tale of exploration and discovery takes up a good third of the book. The rest is a little disjointed; Mr Holroyd's mosaics do not fit a very coherent pattern. He describes the drudgery of executing his Aunt Yolande's will, despite the simplicity of her old-fashioned life. Trying to fix his own identity, he gets his pupils at Penn State University to write a pen-portrait. He quotes from a postbag of readers' responses to “Basil Street Blues”. And he writes a touching love story about Philippa Pullar, “someone who, even on the worst of days, lived under a brilliant sun”.

Mosaic
By Michael Holroyd

Little, Brown; 283 pages; £17.99. To be published in America by W.W. Norton in August

Buy it at
Amazon.com
Amazon.co.uk

But Mr Holroyd's skills—his painstaking research, lift-off imagination and deadpan wit—come into their own as he picks his way through the maze of lies and alliances of his wayward, expanded family. He starts out by looking at two very different women: his Aunt Yolande, a dutiful “Anita Brookner” type, and Agnes May Babb, the daughter of a Lancashire glass-grinder who had at one time been his grandfather's mistress. He is triumphant in finding another family connection between the two. His aunt's fiancé, Henry Hazlehurst, married a woman who later, as one of an army of formidable Mrs Beaumont-Thomases, became Agnes May's sister-in-law (nearly all Mr Holroyd's characters, including his parents, marry at the flick of a blanket).

As he searched around, Mr Holroyd became fascinated with Hazlehurst, an amiable cad, who kept a yacht on the Thames and intrigued women and youngsters with his yarns of derring-do. (He was a gallant early flyer in the first world war, but his lesser duties in the second—in charge of the Battalion Dance Band, superintending a soup kitchen—provide a nice set-piece.)

Both he and Agnes May left a trail of whoppers about their origins, names and ages, “moving on wings of make-believe” as they “careered into my family before speeding on elsewhere”. Mr Holroyd may envy this make-believe (“Oh how I sometimes yearn for the easy swing of a well-oiled novel!”) but it is his plodding detective work, and his delight at the oddities this reveals, that makes this unusual book enjoyable.

Mosaic.
By Michael Holroyd.
Little, Brown; 283 pages; £17.99. To be published in America by W.W. Norton in August

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About sponsorship

Virginia Fiennes

Mar 11th 2004
From The Economist print edition

Lady Virginia Twisleton-Wykeham-Fiennes, organiser of explorers, died on February 20th, aged 56

The Observer

THOUGH women have seldom had much say in the matter, history owes a great deal to spouses who champion their husbands' interests while staying discreetly in the background. Ulysses would not have come to much without Penelope, rebutting suitors with a flick of her shuttle while her husband floundered between Circe and Sirens. And Wordsworth would surely have starved or frozen to death, deep in the Cumbrian fells, if both his wife and his sister had not devoted their lives to cooking his meals and washing his shirts. In pensive solitude, he wrote the poems; in the steamy chaos of the kitchen, his womenfolk made the poems possible.

Virginia ("Ginnie") Fiennes was soundly in this tradition. As a 20th-century woman, she too could drive Land Rovers across British Columbia, hike across the desert and endure the temperatures of the Arctic and Antarctica. Indeed, it was often her idea to do so. But as the wife of perhaps the greatest and most eccentric modern explorer, Sir Ranulph Fiennes, she preferred to leave the adventures, and the triumphs, mostly to him.

As his chief promoter, she made it her job to find the agents, the sponsorship and the boats, plan the routes, help pick the teams, and set up the radio communications necessary to keep track of her husband as he struggled through sandstorms or polar ice. He was sometimes away for years at a time; she grew used to sitting over a crackling, whining radio in some godforsaken spot, listening for the dull tap of Morse code that would tell her where he was. Orders from the explorers tended to be terse and peremptory. Told to have a Boston Whaler ready in 20 days at Inuvik, or light canoes waiting at Spitzbergen, Lady Fiennes snapped to it at once.

The most rigorous test of her organising powers was the Transglobe expedition of 1979-82, the first circumnavigation of the world along the polar axis. Typically, this was her idea. Her husband thought it "absurd" and "romantic rambling"; she called him pathetic for rejecting it just because it had never been done. Besides, in 1972, early in their marriage, they needed the money. He, though titled, had no income except what he could earn by lecturing about his travels. Why not undertake the most daring trip of all?

The planning and sponsor-finding took seven years. Lady Fiennes, the only woman in the team, had to learn not merely to be a wireless operator (when, according to her husband, her technical expertise was "nil"), but to set up radio masts in solid ice, and replace coaxial cables snapped by sheer cold or eaten by Arctic foxes. At the Ryvingen base in the Antarctic, her radio hut was made of cardboard and wooden floorboards she had dragged into place herself. She took comfort in cigarettes; one day, venturing out to check something, her Zippo lighter burned its cold metal shape into her thigh. The soup she cooked for the adventurers had to be hammered out of the bowls, and raw eggs, broken from the shell, bounced on the floor like golf balls.

Missing the Poles

As her husband often gently hinted in his accounts of their expeditions, Lady Fiennes was not cut out for this. She much preferred deserts to snows. *Woman's Own* magazine once commissioned her to live for two months as the nominal third wife of an Omani sheikh; this suited her much better, and she grew so

fond of Arabia that she organised four expeditions to find the lost frankincense city of Ubar in Oman. Out in the desert, she could pick out half-vanished camel trails from cooking pots and saddles abandoned in the sand.

The Transglobe expedition, all 35,000 miles of it, was a huge physical challenge. Slightly built, Lady Fiennes could manage only two laps of a running track before she had to lie on the grass. She was scared of heights, and too claustrophobic to make snow tunnels to her radio huts. In the Antarctic, she thought she saw ghosts; in the Arctic, where her husband always slept with the window open, she took a hot-water bottle and endured the draught.

She had known him a long time, since he was 12 and she was nine. Their first expeditions had been down the Lod river in Sussex or through the nearby woods. Her father tried to separate her from the wild adventurer, but failed. Since her husband was impelled on these extraordinary journeys, she showed little emotion whenever he left. Her Jack Russell, Bothie, became her chief companion in the long absences. Even so, Lady Fiennes let Bothie go to both the South and the North Poles, the first dog ever to do so, while she stayed back at base. Bothie made his mark in the usual way, not far from the Union Jack.

In 1979, in South Africa, a baffled woman reporter asked her why she went on these expeditions in such a self-effacing way. She replied that she simply wished to be where her husband was. “I'm not here proving that a woman can do anything a man can,” she said. “Women are not as suited or better at doing anything that is normally done by men.” She added, “I'm not brave.” When her husband went on his latest half-crazy endurance test, running seven marathons in seven continents in seven days while recovering from a massive heart attack, she refused to tell him of her own cancer diagnosis in case it made him abandon his goal.

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Overview

Mar 11th 2004
From The Economist print edition

America's trade deficit in goods and services widened to a record $43.1 billion in January. The deficit in goods rose to a record $48.4 billion and the politically sensitive trade deficit with China increased from $9.9 billion in December to $11.5 billion. Despite the competitive edge from the dollar's depreciation, exports declined, suggesting that GDP growth in the first quarter may be somewhat weaker than expected. The jobless recovery continued. Payrolls increased in February by only 21,000—considerably less than the markets had been forecasting. Employment stagnated in the private sector and fell by 24,000 in the construction industry.

The prospects for recovery in the **euro area** remain uncertain following mixed reports from **Germany**. Industrial production fell by 0.1% in January. However, exports rose by 6%, helping the trade surplus to swell to *euro*12.3 billion from *euro*10.4 billion in December. Official figures confirmed that **Italy's** GDP stagnated in the fourth quarter of 2003, leaving it only 0.1% higher than in the same period a year before. The economy was weakened by a decline in household spending and falling exports.

Japanese growth in the fourth quarter was revised down from an annual rate of 7.0% to 6.4%. However, private-sector capital-spending growth was revised up from 5.1% to 6.3%, suggesting that investment will continue to bolster the recovery despite a sharp downturn in machinery orders in January. The outlook for exports also remains bright following an unexpectedly big current-account surplus of ¥1,054 billion in January, over double the surplus a year before. Exports rose by 11.3% over the same period as Japanese firms continued to benefit from the Asian trade boom. The balance-of-payments figures also revealed buoyant financial inflows in January as foreigners purchased Japanese bonds and equities.

Worries about imbalances in the **British** economy came to the fore as the trade deficit in goods and services widened from £3.1 billion in December to a record deficit of £4.6 billion in January. The deficit in goods deteriorated to £5.6 billion as exports to America fell sharply. The decline in exports contributed to an unexpectedly small increase in industrial output of 0.1% in January. Meanwhile, the housing market is heating up again. The government's index of annual house-price inflation, which fell during 2003 to 8.3% in December, rose to 9.7% in January.

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Output, demand and jobs

Mar 11th 2004
From The Economist print edition

% change on year ago

	GDP latest		GDP qtr*	The Economist poll GDP forecasts 2004	2005	Industrial production latest		Retail sales (volume) latest		Unemployment % rate latest		year ago
Australia	+ 4.0	Q4	+ 5.5	+ 3.7	+ 3.3	– 0.1	Q3	+ 7.3	Q4	5.9	Feb	6.1
Austria	+ 0.8	Q3	+ 1.4	+ 1.8	+ 2.1	+ 2.2	Sep	+ 0.1	Dec	4.4	Feb	4.2
Belgium	+ 1.2	Q4	+ 2.4	+ 1.8	+ 2.1	+ 8.3	Dec	– 0.7	Dec	12.8	Feb†	11.8
Britain	+ 2.8	Q4	+ 3.8	+ 3.0	+ 2.5	+ 0.4	Jan	+ 6.4	Jan	4.9	Dec††	5.1
Canada	+ 1.6	Q4	+ 3.8	+ 3.0	+ 3.2	+ 1.5	Dec	+ 2.1	Nov	7.4	Jan	7.5
Denmark	+ 0.3	Q4	+ 1.2	+ 2.0	+ 2.3	– 1.5	Jan	+ 1.8	Dec	6.5	Jan	5.5
France	+ 0.5	Q4	+ 2.0	+ 1.9	+ 2.2	+ 2.0	Dec	– 2.2	May	9.6	Jan	9.3
Germany	+ 0.2	Q4	+ 0.9	+ 1.6	+ 1.8	+ 1.4	Jan	– 2.9	Jan	10.3	Feb§	10.5
Italy	+ 0.1	Q4	nil	+ 1.6	+ 2.0	– 0.2	Dec	– 1.5	Dec	8.4	Oct	8.9
Japan	+ 3.4	Q4	+ 6.4	+ 2.6	+ 1.8	+13.8	Jan	+ 1.5	Jan	5.0	Jan	5.5
Netherlands	– 0.5	Q4	+ 1.2	+ 1.0	+ 1.9	+ 0.7	Jan	– 6.3	Dec‡	5.9	Jan**	4.4
Spain	+ 2.7	Q4	+ 3.0	+ 2.9	+ 2.9	+ 2.9	Jan	+ 4.5	Jan	11.2	Jan	11.4
Sweden	+ 1.9	Q4	+ 2.2	+ 2.5	+ 2.6	+ 5.2	Jan	+ 3.7	Jan	5.9	Jan†	5.1
Switzerland	nil	Q4	+ 1.8	+ 1.6	+ 1.9	+ 0.4	Q3	+ 1.3	Dec	4.2	Feb†	3.6
United States	+ 4.3	Q4	+ 4.0	+ 4.7	+ 3.5	+ 2.4	Jan	+ 6.0	Jan	5.6	Feb	5.9
Euro area	+ 0.6	Q4	+ 1.2	+ 1.8	+ 2.2	+ 2.3	Dec	+ 1.0	Jan	8.8	Jan	8.7
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*											
Finland	+ 1.6	Q4	+ 1.1	na	na	– 1.1	Jan	+ 2.5	Dec	9.5	Jan†	9.5
Greece	+ 5.0	Q4	na	na	na	+ 1.6	Dec	+ 6.4	Nov	na		na
Iceland	+ 3.2	Q3	na	na	na	– 0.3	2002	na		3.4	Dec†	3.0
Ireland	– 0.1	Q3	na	na	na	+17.0	Dec	– 0.1	Dec	4.7	Feb	4.3
Luxembourg	+ 1.3	2002	na	na	na	– 1.2	Dec	+ 5.8	Oct	4.5	Jan	3.8
New Zealand	+ 3.5	Q3	+ 6.3	na	na	+ 4.1	Q3	+ 6.0	Q4	4.6	Q4	4.9
Norway	+ 0.2	Q3	+ 3.3	na	na	+ 0.5	Jan	+ 4.4	Jan	4.2	Q4	3.7
Portugal	– 0.9	Q3	– 2.1	na	na	– 3.0	Jan	+ 1.1	Jan	6.6	Q4†	6.2

*% change on previous quarter at an annual rate. †Not seasonally adjusted. ‡New series. ††Oct-Dec; claimant count rate 2.9% in Jan. §EU harmonised rate 9.3% in Feb. **Nov-Jan. +

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Prices and wages

Mar 11th 2004
From The Economist print edition

% change on year ago

	Consumer prices			The Economist poll consumer prices forecast		Producer prices			Wages/earnings		
	latest		year ago	2004	2005	latest		year ago	latest		year ago
Australia	+ 2.4	Q4	+ 3.0	+ 2.2	+ 2.6	– 1.1	Q4	+ 1.6	+ 5.9	Q4	+ 3.9
Austria	+ 1.1	Jan	+ 1.7	+ 1.1	+ 1.4	+ 1.8	Feb	+ 2.1	+ 2.2	Jan	+ 2.2
Belgium	+ 1.3	Feb	+ 1.7	+ 1.4	+ 1.6	+ 2.1	Jan	+ 0.1	+ 1.8	Q4	+ 2.2
Britain	+ 1.4	Jan*	+ 1.4	+ 1.5	+ 1.8	+ 1.6	Feb	+ 1.5	+ 3.4	Dec	+ 3.7
Canada	+ 1.2	Jan	+ 4.5	+ 1.5	+ 2.0	– 3.6	Jan	+ 2.4	+ 5.5	Dec	+ 1.6
Denmark	+ 0.9	Feb	+ 2.9	+ 1.5	+ 2.0	+ 0.3	Jan	+ 1.3	+ 3.7	Q4	+ 3.9
France	+ 2.0	Jan	+ 2.0	+ 1.8	+ 1.6	+ 0.2	Jan	+ 1.7	+ 2.7	Q4	+ 3.5
Germany	+ 0.9	Feb	+ 1.3	+ 1.0	+ 1.1	+ 0.1	Feb	+ 1.6	+ 1.6	Dec	+ 3.1
Italy	+ 2.4	Feb	+ 2.6	+ 2.3	+ 2.1	+ 0.3	Jan	+ 2.5	+ 2.7	Dec	+ 2.2
Japan	– 0.3	Jan	– 0.4	– 0.2	nil	nil	Feb	– 0.8	+ 1.5	Jan	+ 1.1
Netherlands	+ 1.2	Feb	+ 2.4	+ 1.5	+ 1.4	+ 0.6	Dec	+ 4.2	+ 2.0	Feb	+ 3.3
Spain	+ 2.1	Feb	+ 3.7	+ 2.5	+ 2.5	+ 0.7	Jan	+ 2.6	+ 3.1	Q3	+ 3.8
Sweden	+ 0.8	Jan	+ 2.8	+ 1.4	+ 1.9	– 2.1	Jan	– 0.2	+ 2.7	Dec	+ 4.0
Switzerland	+ 0.1	Feb	+ 1.0	+ 0.5	+ 0.9	– 0.2	Jan	– 0.2	+ 1.8	2002	+ 2.5
United States	+ 1.9	Jan	+ 2.6	+ 1.5	+ 1.8	+ 4.0	Dec	+ 1.2	+ 1.6	Feb	+ 3.4
Euro area	+ 1.6	Feb	+ 2.4	+ 1.7	+ 1.6	+ 0.3	Jan	+ 2.3	+ 2.6	Q3	+ 3.1
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*										
Finland	+ 0.2	Jan	+ 1.4	na	na	– 0.7	Jan	+ 1.4	+ 3.7	Q4	+ 4.1
Greece	+ 2.5	Feb	+ 4.3	na	na	+ 2.3	Jan	+ 0.5	na		na
Iceland	+ 1.8	Mar	+ 2.2	na	na	+ 1.4	Feb	+ 3.5	+ 3.3	Jan	+ 5.5
Ireland	+ 1.8	Jan	+ 4.8	na	na	– 8.2	Jan	– 5.3	+ 4.7	Q3	+ 6.0
Luxembourg	+ 2.0	Feb	+ 2.5	na	na	+ 0.1	Dec	+ 1.3	– 0.4	Dec	+ 0.7
New Zealand	+ 1.6	Q4	+ 2.7	na	na	– 0.1	Q4	– 1.4	+ 2.3	Q4	+ 2.1
Norway	– 1.7	Feb	+ 4.8	na	na	– 1.3	Feb	+11.9	+ 3.9	Q4	+ 5.2
Portugal	+ 2.3	Jan	+ 4.0	na	na	– 0.3	Jan	+ 2.6	– 2.6	Dec	+ 0.4

*New series. RPI inflation rate in January: 2.6%.

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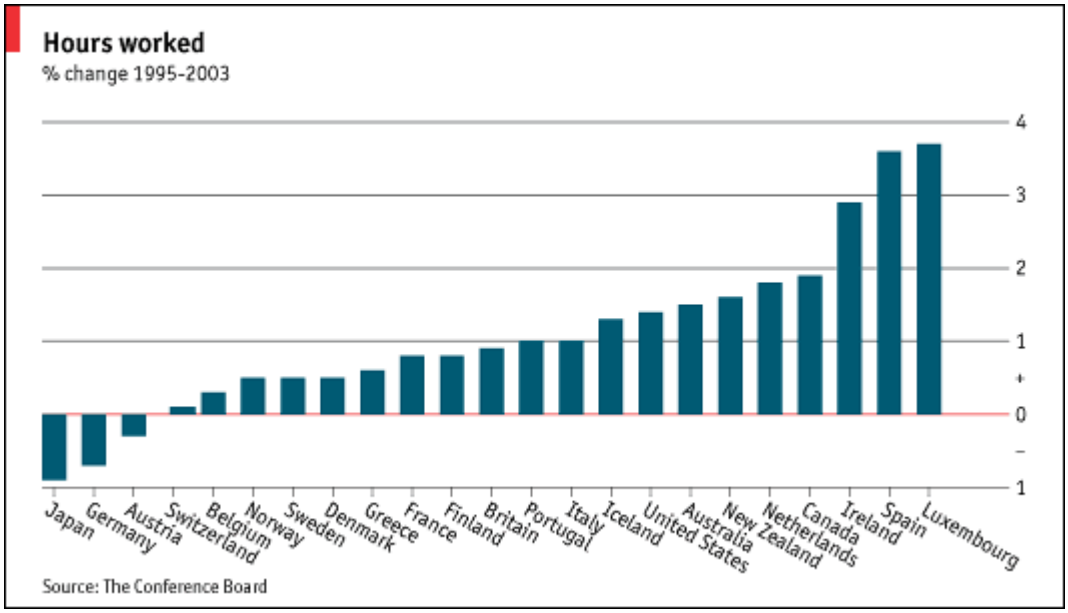
Hours worked

Mar 11th 2004
From The Economist print edition



Improving productivity is a common goal of economic policy, but increasing the number of hours worked can also raise incomes. Of all the countries in our chart, Luxembourg's total number of hours worked has risen the most, by around 3.7% between 1995 and 2003. Germany and Japan have seen the number of hours worked slide during that period, as average GDP growth slowed from earlier years.

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Money and interest rates

Mar 11th 2004
From The Economist print edition

	Money supply* % change on year ago			Interest rates % p.a. (Mar 10th 2004)					
				3-mth money market		2-year	10-year gov't bonds		corporate
	narrow	broad		latest	year ago	gov't bonds	latest	year ago	bonds
Australia	+ 9.1	+13.8	Jan	5.55	4.76	5.11	5.43	5.07	6.40
Britain	+ 7.7	+ 8.3	Jan	4.22	3.63	4.25	4.64	4.06	5.49
Canada	+ 7.0	+ 7.7	Jan	2.10	2.96	2.32	4.22	4.87	5.81
Denmark	+ 6.4	+ 6.7	Jan	2.15	2.73	2.31	4.04	4.03	5.19
Japan	+ 4.3	+ 1.7	Feb	0.03	0.02	0.08	1.32	0.70	1.46
Sweden	+ 3.3	+ 2.2	Jan	2.36	3.40	2.82	4.27	4.30	2.94
Switzerland	+25.2	+ 9.0	Jan	0.26	0.32	0.72‡	2.31	2.07	2.23
United States	+ 5.6	+ 4.3	Jan	0.99	1.14	1.51	3.73	3.59	5.41
Euro area†	+11.2	+ 6.4	Jan	2.05	2.54	2.15	3.88	3.80	3.74

*Narrow: M1 except Britain and Sweden M0, broad: M2 or M3 except Britain M4. †Germany for bonds. New Series. Benchmarks: US 30-year 4.68%, Japan No. 258 1.33%. Central bank rates: US fed funds 1.00%, ECB refinancing 2.00%, BOJ overnight call 0.001%, BOE repo 4.0%. Sources: Commerzbank, Danske Bank, J.P. Morgan Chase, Royal Bank of Canada, Stockholmsbörsen, UBS, Global Insight, Westpac, Thomson Datastream. Rates cannot be construed as banks' offers.

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The Economist commodity price index

Mar 11th 2004
From The Economist print edition

1995=100

	Mar 2nd	Mar 9th*	% change on one month	% change on one year
Dollar index				
All items	97.5	95.9	+ 2.9	+22.2
Food	93.4	93.7	+ 4.9	+17.7
Industrials				
All	103.2	98.9	+ 0.4	+28.5
Nfa†	97.7	96.6	+ 1.6	+21.1
Metals	107.8	100.9	– 0.5	+35.2
Sterling index				
All items	83.2	82.3	+ 4.3	+ 5.1
Euro index				
All items	104.3	101.7	+ 5.2	+ 7.4
Yen index				
All items	114.4	113.4	+ 8.2	+15.3
Gold				
$ per oz	393.75	401.75	– 1.7	+13.6
West Texas Intermediate				
$ per barrel	36.60	36.27	+ 6.9	– 1.7

* Provisional. † Non-food agriculturals.

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Stockmarkets

Mar 11th 2004
From The Economist print edition

Market indices

	Mar 10th	2004 high	2004 low	% change on one week	% change on record high	% change on Dec 31st 2002 in local currency	% change on Dec 31st 2002 in $ terms
Australia (All Ordinaries)	3,414.3	3,427.2	3,274.9	+ 0.5	– 0.7	+ 3.3	+ 2.4
Austria (ATX)	1,843.0	1,863.1	1,568.9	+ 1.4	– 1.1	+19.3	+15.6
Belgium (Bel 20)	2,477.0	2,517.3	2,244.2	– 0.2	–32.7	+10.4	+ 7.0
Britain (FTSE 100)	4,545.3	4,559.1	4,377.7	+ 0.4	–34.4	+ 1.5	+ 2.2
Canada (Toronto Composite)	8,585.4	8,874.7	8,220.9	– 2.4	–24.6	+ 4.4	+ 1.5
Denmark (KBX)	238.5	241.3	219.0	– 0.5	–21.0	+11.7	+ 8.1
France (SBF 250)	2,573.2	2,594.4	2,411.5	– 0.1	–41.4	+ 6.7	+ 3.4
(CAC 40)	3,758.1	3,785.4	3,557.9	nil	–45.7	+ 5.6	+ 2.4
Germany (DAX)	4,044.7	4,151.8	3,991.4	– 0.7	–49.8	+ 2.0	– 1.1
Italy (BCI)	1,319.2	1,325.5	1,263.9	+ 0.3	–39.6	+ 5.0	+ 1.7
Japan (Nikkei 225)	11,433.2	11,537.3	10,365.4	+ 0.7	–70.6	+ 7.1	+ 3.3
(Topix)	1,128.4	1,134.3	1,022.6	+ 1.1	–60.9	+ 8.1	+ 4.3
Netherlands (AEX)	354.5	364.8	337.7	– 1.5	–49.5	+ 5.0	+ 1.7
Spain (Madrid SE)	868.0	875.0	822.2	+ 0.2	–24.3	+ 7.4	+ 4.1
Sweden (Affarsvarlden Gen)	207.8	218.1	188.5	– 1.9	–48.1	+10.3	+ 5.8
Switzerland (Swiss Market)	5,877.1	5,934.4	5,507.7	+ 0.1	–30.1	+ 7.1	+ 2.7
United States (DJIA)	10,296.0	10,737.7	10,296.0	– 2.8	–12.2	– 1.5	– 1.5
(S&P 500)	1,123.9	1,157.8	1,108.5	– 2.4	–26.4	+ 1.1	+ 1.1
(NASDAQ Comp)	1,964.5	2,153.8	1,964.5	– 3.4	–61.1	– 1.9	– 1.9
Europe (FTSE Eurotop 300)*	1,013.3	1,026.2	957.9	– 0.8	–40.6	+ 5.8	+ 2.5
Euro area (FTSE Ebloc 100)*	877.3	888.3	831.7	– 0.2	–43.4	+ 5.5	+ 2.2
World (MSCI)†	1,055.0	1,085.8	1,036.3	– 1.3	–27.2	+ 1.8	+ 1.8
World bond market (Citigroup)‡	601.6	619.5	595.1	– 1.3	– 2.9	– 0.4	– 0.4

*In euro terms. †Morgan Stanley Capital International index includes individual markets listed above plus eight others, in dollar terms. ‡Citigroup World Government Bond Index, total return, in $ terms.

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Trade, exchange rates and budgets

Mar 11th 2004
From The Economist print edition

	Trade balance*, $bn latest 12 months	Current account $bn latest 12 mths	Current account The Economist poll % of GDP, forecast 2004	Current account The Economist poll % of GDP, forecast 2005	Exchange rate trade-weighted† 1990=100 Mar 10th	Exchange rate trade-weighted† 1990=100 year ago	Currency units per $ Mar 10th	Currency units per $ year ago	Currency units per £	Currency units per euro	Currency units per ¥100	Budget balance % of GDP 2004‡
Australia	− 15.9 Jan	− 30.0 Q4	− 5.1	− 4.5	88.6	75.5	1.34	1.68	2.41	1.64	1.21	0.5
Austria	− 1.2 Nov	− 1.2 Dec	− 0.2	− 0.3	103.4§	101.6	0.82	0.91	1.47	–	0.74	-1.2
Belgium	+ 19.8 Dec	+ 9.9 Sep	+ 4.1	+ 4.2	103.8§	101.4	0.82	0.91	1.47	–	0.74	nil
Britain	− 79.8 Jan	− 36.1 Q3	− 2.4	− 2.3	104.0	100.9	0.56	0.62	–	0.68	0.50	-2.9
Canada	+ 43.5 Jan	+ 18.5 Q4	+ 1.4	+ 1.0	86.9	79.5	1.33	1.48	2.40	1.63	1.20	0.7
Denmark	+ 9.9 Dec	+ 6.0 Dec	+ 2.6	+ 2.6	106.7	105.6	6.10	6.74	11.0	7.45	5.49	1.0
France	+ 4.9 Dec	+ 18.2 Dec	+ 1.2	+ 1.2	107.4§	104.5	0.82	0.91	1.47	–	0.74	-3.7
Germany	+152.8 Jan	+ 57.1 Jan	+ 2.5	+ 2.4	105.2§	101.7	0.82	0.91	1.47	–	0.74	-3.7
Italy	+ 2.1 Dec	− 20.6 Dec	− 1.0	− 0.8	76.6§	74.5	0.82	0.91	1.47	–	0.74	-2.9
Japan	+110.2 Jan	+142.3 Jan	+ 3.0	+ 2.9	132.5	132.0	111	117	200	136	–	-6.8
Netherlands	+ 31.7 Dec	+ 14.4 Q4	+ 3.2	+ 3.4	103.4§	100.6	0.82	0.91	1.47	–	0.74	-2.5
Spain	− 52.5 Dec	− 26.7 Dec	− 2.5	− 2.6	77.7§	75.9	0.82	0.91	1.47	–	0.74	0.2
Sweden	+ 19.2 Jan	+ 18.9 Q4	+ 4.8	+ 4.5	81.3	78.6	7.50	8.43	13.5	9.17	6.75	0.5
Switzerland	+ 6.8 Jan	+ 29.4 Q3	+10.6	+10.6	110.3	116.9	1.29	1.33	2.32	1.58	1.16	na
United States	−552.7 Jan	−541.7 Q3	− 5.1	− 4.9	97.3	106.4	–	–	1.80	1.22	0.90	-5.1
Euro area	+ 83.5 Dec	+ 36.5 Dec	+ 0.7	+ 0.6	91.3	87.6	0.82	0.91	1.47	–	0.74	-2.6
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*											
Finland	+ 13.5 Dec	+ 9.2 Dec	na	na	82.7§	80.3	0.82	0.91	1.48	–	0.74	1.9
Greece	− 25.7 Dec	− 11.3 Dec	na	na	59.9§	58.7	0.82	0.91	1.48	–	0.74	-1.6
Iceland	− 0.3 Jan	− 0.4 Q3	na	na	93.5**	92.9	70.6	77.0	127	86.3	63.6	0.2
Ireland	+ 39.2 Dec	− 2.1 Q3	na	na	95.8§	91.6	0.82	0.91	1.48	–	0.74	-1.3
Luxembourg	− 3.4 Dec	+ 2.0 Q3	na	na	103.8§	101.4	0.82	0.91	1.48	–	0.74	-1.8
New Zealand	− 2.2 Jan	− 3.3 Q3	na	na	105.9	95.4	1.50	1.82	2.70	1.83	1.35	2.2
Norway	+ 28.1 Jan	+ 28.7 Nov	na	na	93.1	101.6	7.09	7.13	12.8	8.67	6.38	9.7
Portugal	− 13.5 Nov	− 8.2 Nov	na	na	93.4**	91.3	0.82	0.91	1.48	–	0.74	-3.0

*Merchandise. Australia, Britain, France, Canada, Japan and United States imports fob, exports fob. All others cif/fob. †Bank of England except §IMF, January average. ‡OECD estimate.
**IMF, November average.

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Exchange rates against the dollar

Mar 11th 2004
From The Economist print edition

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Overview

Mar 11th 2004
From The Economist print edition

China's industrial output surged 23.2% in the year to February. But this was distorted by the lunar new-year holiday: in 2003 the holiday was in February, not January as in this year. China ran a trade deficit of $7.9 billion in February: its imports were up 77% on a year earlier, while exports rose 40%.

Thailand's GDP grew by a faster than expected 7.8% in the year to the fourth quarter. The economy's 6.7% growth for the whole of 2003 was its fastest since 1995.

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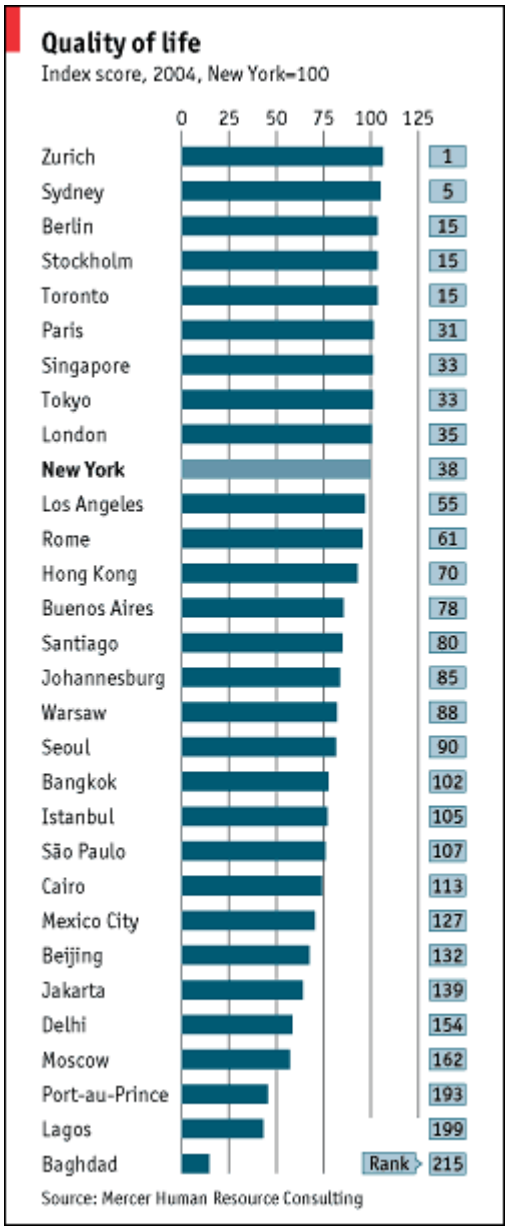
Quality of life

Mar 11th 2004
From The Economist print edition

Baghdad is reckoned to have the worst quality of life of any of the cities in our chart, as measured by William M. Mercer, a consultancy. Its survey measures quality of life according to 39 factors, including political stability, personal freedom, air pollution and the quality of healthcare, schools, restaurants and theatres. Of the ten bottom-ranked cities, all except the capitals of Yemen and Iraq are in poor African countries. Russian cities, including Moscow, have some of the lowest rankings in eastern Europe.



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Economy

Mar 11th 2004
From The Economist print edition

	% change on year ago						Latest 12 months, $bn				Foreign reserves* $bn, latest	
	GDP		Industrial production		Consumer prices		Trade balance		Current account			
China	+ 9.9	Q4	+23.2	Feb	+ 3.2	Jan	+18.1	Feb	+35.4	2002	403.3	Dec
Hong Kong	+ 4.0	Q3	– 9.2	Q3	– 1.5	Jan	– 8.3	Jan	+17.0	Q3	123.6	Jan
India	+ 8.4	Q3	+ 6.2	Dec	+ 4.3	Jan	–15.6	Jan	+ 2.3	Q3	104.1	Feb
Indonesia	+ 4.3	Q4	+ 4.7	Jul	+ 4.6	Feb	+28.5	Jan	+ 7.8	Q3	34.7	Jan
Malaysia	+ 6.4	Q4	+16.7	Jan	+ 1.0	Jan	+19.6	Dec	+11.9	Q3	43.5	Jan
Philippines	+ 4.5	Q4	– 3.1	Dec	+ 3.4	Jan	– 1.8	Dec	+ 3.1	Oct	12.9	Jan
Singapore	+ 4.9	Q4	+ 5.8	Jan	+ 1.3	Jan	+15.1	Jan	+25.6	Q3	101.2	Feb
South Korea	+ 2.3	Q3	+ 4.8	Jan	+ 3.3	Feb	+21.1	Feb	+12.4	Dec	162.1	Feb
Taiwan	+ 5.2	Q4	– 1.1	Jan	+ 0.6	Feb	+16.3	Feb	+28.6	Q4	224.8	Feb
Thailand	+ 7.8	Q4	+11.6	Jan	+ 2.2	Feb	+ 4.2	Jan	+ 8.1	Jan	42.2	Jan
Argentina	+ 9.8	Q3	+ 8.8	Jan	+ 2.3	Feb	+14.8	Jan	+ 8.9	Q3	14.7	Jan
Brazil	– 0.1	Q4	+ 1.7	Jan	+ 7.7	Jan	+26.1	Feb	+ 4.6	Jan	53.3	Jan
Chile	+ 3.0	Q3	+ 1.8	Jan	+ 0.8	Jan	+ 3.5	Feb	– 0.6	Q4	16.0	Jan
Colombia	+ 4.3	Q4	+ 3.6	Dec	+ 6.3	Feb	nil	Nov	– 1.6	Q3	11.1	Jan
Mexico	+ 2.0	Q4	+ 2.4	Dec	+ 4.2	Jan	– 5.6	Jan	– 9.2	Q4	59.2	Feb
Peru	+ 3.1	Dec	– 1.9	Dec	+ 3.4	Feb	+ 0.9	Jan	– 1.1	Q4	9.8	Jan
Venezuela	+ 9.0	Q4	– 4.8	Oct	+21.9	Feb	+15.0	Q4	+ 9.6	Q4	16.0	Dec
Egypt	+ 3.1	2003†	+ 2.6	2003†	+ 5.5	Dec	– 6.0	Jul	+ 3.3	Q3	14.1	Dec
Israel	– 0.6	Q4	+ 1.3	Dec	– 2.3	Jan	– 6.1	Jan	– 0.2	Q4	26.2	Feb
South Africa	+ 1.5	Q4	– 1.4	Dec	+ 0.2	Jan	+ 1.9	Jan	– 1.3	Q3	6.4	Jan
Turkey	+ 4.8	Q3	+ 6.5	Jan	+14.3	Feb	–21.9	Dec	– 5.5	Nov	33.6	Dec
Czech Republic	+ 3.1	Q4	+ 3.8	Jan	+ 2.3	Feb	– 2.5	Jan	– 5.7	Q4	26.8	Feb
Hungary	+ 3.5	Q4	+ 9.9	Jan	+ 7.1	Feb	– 3.8	Dec	– 5.2	Dec	13.1	Feb
Poland	+ 3.9	Q3	+14.3	Jan	+ 1.7	Jan	– 9.7	Dec	– 3.2	Dec	35.4	Jan
Russia	+ 5.7	Q3	+ 7.5	Jan	+10.8	Feb	+60.0	Dec	+39.1	Q4	80.2	Jan
MORE COUNTRIES	Data for the countries below are not provided in printed editions of *The Economist*											
Estonia	+ 5.8	Q4	+ 7.6	Jan	+ 0.4	Feb	– 2.0	Jan	– 1.6	Q4	1.2	Jan
Latvia	+ 7.3	Q3	+ 6.9	Dec	+ 4.3	Feb	– 2.0	Dec	– 0.9	Dec	1.4	Jan
Lithuania	+10.6	Q4	na		– 1.3	Feb	– 2.6	Dec	– 1.1	Q3	3.3	Jan
Slovakia	+ 4.2	Q3	+ 1.3	Jan	+ 8.3	Jan	– 0.6	Jan	– 0.5	Nov	11.8	Jan
Slovenia	+ 2.3	Q3	+ 3.6	Dec	+ 3.6	Feb	– 0.8	Jan‡	nil	Dec	8.5	Dec
Pakistan	+ 5.1	2003†	+20.8	Oct	+ 5.2	Jan	– 1.5	Feb	+ 3.6	Q4†	11.0	Dec
Saudi Arabia	+ 1.0	2002	na		+ 0.4	Nov	+41.8	2002	+11.9	2002	22.6	Dec

*Excluding gold, except Singapore; IMF definition. †Year ending June. ‡New series

Sources: National statistics offices, central banks and stock exchanges; Thomson Datastream; Economist Intelligence Unit; Reuters; J.P. Morgan Chase; Hong Kong Monetary Authority; Centre for Monitoring Indian Economy; FIEL; EFG-Hermes; Bank Leumi Le-Israel; Standard Bank Group; Akbank; Deutsche Bank

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Financial markets

Mar 11th 2004
From The Economist print edition

	Currency units			Interest rates	Stockmarkets	% change on		
	per $		per £	short-term	Mar 10th		Dec 31st 2002	
	Mar 10th	year ago	Mar 10th	% p.a.		one week	in local currency	in $ terms
China	8.28	8.28	14.9	na	1,759.1	+1.0	+ 12.1	+ 12.1
Hong Kong	7.79	7.80	14.0	0.18	13,214.2	– 1.8	+ 5.1	+ 4.7
India	45.2	47.6	81.4	4.41	5,759.3	– 1.4	– 1.4	– 0.5
Indonesia	8,585	8,893	15,466	7.70	760.3	– 2.1	+ 9.9	+ 7.8
Malaysia	3.80	3.80	6.85	3.03	875.8	– 0.2	+ 10.3	+ 10.3
Philippines	56.3	55.1	101.4	8.75	1,455.7	– 0.5	+ 0.9	– 0.4
Singapore	1.71	1.75	3.09	0.75	1,875.0	– 0.3	+ 6.3	+ 5.3
South Korea	1,175	1,244	2,116	3.97	876.0	– 2.2	+ 8.1	+ 9.6
Taiwan	33.4	34.7	60.2	1.05	6,874.9	– 0.8	+ 16.7	+ 18.6
Thailand	39.4	42.7	71.0	1.31	705.3	+1.3	– 8.7	– 8.2
Argentina	2.90	3.11	5.23	3.06	1,239.7	+3.0	+ 15.6	+ 16.8
Brazil	2.89	3.48	5.20	16.30	21,776.3	– 3.4	– 2.1	– 2.1
Chile	602	753	1,085	1.68	7,693.0	– 1.0	+ 4.9	+ 3.2
Colombia	2,684	2,963	4,836	7.70	3,090.1	+4.6	+ 32.4	+ 37.1
Mexico	10.9	10.9	19.7	6.00	9,978.7	– 0.7	+ 13.5	+ 16.5
Peru	3.46	3.48	6.24	2.44	2,782.3	+1.0	+ 14.3	+ 14.2
Venezuela	3,289§	1,598	5,926	na	27,686.4	– 0.8	+ 24.7	+ 8.1
Egypt	6.19	5.76	11.15	7.65	13,506.3	+1.0	+ 16.1	+ 15.6
Israel	4.50	4.82	8.10	1.15	574.3	+0.8	+ 7.5	+ 5.0
South Africa	6.67	8.00	12.0	8.15	10,896.3	– 2.5	+ 4.9	+ 4.9
Turkey	1,320,000	1,620,500	2,377,980	21.00	19,798.8	+3.3	+ 6.3	+ 13.1
Czech Republic	27.1	28.7	48.9	2.05	801.7	+3.3	+ 21.6	+ 15.1
Hungary	207	223	373	12.35	10,700.5	+1.1	+ 14.1	+ 14.2
Poland	3.89	3.99	7.01	5.51	23,910.7	+0.8	+ 14.8	+ 10.5
Russia	28.6	31.4	51.5	14.00	680.9‡	+2.0	+ 17.3	+ 20.0
EMF (MSCI)*	1.00	1.00	1.80	na	476.3	– 1.3	+ 7.6	+ 7.6
EMBI+†	1.00	1.00	1.80	na	303.1	+1.6	+ 2.8	+ 2.8

*Emerging Mkts Free. †J.P. Morgan Chase's Emerging Mkts Bond Index Plus. ‡ In $ terms. § Floating exchange rate.

Sources: National statistics offices, central banks and stock exchanges; Thomson Datastream; Economist Intelligence Unit; Reuters; J.P. Morgan Chase; Hong Kong Monetary Authority; Centre for Monitoring Indian Economy; FIEL; EFG-Hermes; Bank Leumi Le-Israel; Standard Bank Group; Akbank; Deutsche Bank

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